Journal of The Chemical Society

Faraday Transactions I

Faraday Transactions II

Volume 68
INDEX

1972

Journal of the Chemical Society, Faraday Transactions I

SUBJECT INDEX—VOLUME 68, 1972

PAGE

I, 1 Adsorption (including absorption, chemisorption, physical adsorption, clathration, ion exchange, etc.)

Absorption of Hydrogen by Palladium-Platinum Alloys under High Pressures of Hydrogen Gas. (Baranowski, Lewis, Majchrzak & Wiśniewski) 824
Adsorption and Incorporation on Copper. (Saleh) 1520
Adsorption of Krypton on Alkali Halide Crystals. Part 1: Theory. (Takaishi) . . 801
Adsorption of Krypton on Alkali Halide Crystals. Part 2: On NaCl, KCl and RbCl. (Takaishi & Mohri) 1921
Adsorption of n-Alkane Vapours on Graphon. (Clint) 2239
Adsorption of n-Alkanols at Alkane/Water Interfaces. (Aveyard & Briscoe) 478
Adsorption of Neopentane on Tungsten and Palladium Films. (Ross, Roberts & Kemball) 914
Adsorption of Xenon and Hydrogen Atoms and their Interaction on Silver Films. (Knapp & Stiddard) 2139
Adsorption of Xenon on Films of Gold, Aluminium and Silver. (Bruce & Sheridan) . 997
Chemisorption of Hydrogen on Evaporated Copper Films. (Alexander & Pritchard) . 202
Effect of Silica Surface Dehydroxylation on Adsorption of Aromatic Hydrocarbons from Solution in n-Alkanes. (Eltekov, Khopina & Kiselev) 889
Electronegativity, Work Function, and Heat of Adsorption of Hydrogen on Metals. (Trasatti) 229
Field Emission Study of the Formation and Desorption of Oxide Layers on Tungsten Surfaces. (Goymour & King) 280
Infra-red Studies of Carboxylic Acid Vapours Adsorbed on Evaporated Germanium Films. (Howe & Metcalfe) 393
Infra-red Studies of Oxygen Adsorbed on Evaporated Germanium Films. (Howe, Liddy & Metcalfe) 1595
Infra-red Studies of Reactions on Oxide Surfaces. Part 1: Boron Trifluoride on Silica. (Morrow & Devi) 403
Infra-red Studies of Rutile Surfaces. Part 3: Adsorption of Water and Dehydroxylation of Rutile. (Jones & Hockey) 907
Infra-red Study of the Adsorption of Ammonia on MgO. Part 1: The Dehydrated Surface. (Tench & Giles) 193
Infra-red Study of the Adsorption of Ammonia on MgO. Part 2: The Hydrated Surface. (Tench) 197
Infra-red Study of the Reactions of Silicon, Titanium and Tin Tetrachlorides with Rutile. (Parfitt, Ramsbotham & Rochester) 17
Infra-red Study of the Surface Properties of Rutile. Adsorption of Ethanol, n-Butanol and n-Hexanol. (Jackson & Parfitt) 1443
Infra-red Study of the Surface Properties of Rutile. Deuterium Exchange, Carbon Dioxide and But-1-ene Adsorption. (Jackson & Parfitt) 896
Interaction of Hydrogen Chloride with Evaporated Metal Films. Part 1: Chlorination of Iron, Nickel, Palladium, Silver and Lead. (Dadiza & Saleh) 269
Interaction of Hydrogen Chloride with Evaporated Metal Films. Part 2: Adsorption and Incorporation on Films of Pd, Ag and Pb, Deposited on Iron Substrates. (Dadiza & Saleh) 1513
Interaction of Oxygen with Polycrystalline Tungsten. Part 3: Electron Stimulated Desorption. (King, Madey & Yates, Jr.) 1347
Ion Exchange Involving Several Groups of Homogeneous Sites. (Barrer & Klinowski) . 73
Molecular Sieve Properties of the Carbonaceous Products prepared by Chemical Dehydrohalogenation of Polyvinylidene Chloride. (Barton, Beswick & Harrison) . . 1647
Order-Disorder Transitions at the Liquid/Solid Interface. Volumetric Behaviour of Primary Aliphatic Alcohols near the Graphon Surface. (Findenegg) 1799
Oxidation of a Pyrophoric Iron. Part 1: Kinetics of Chemisorption of Oxygen on the finely divided Iron-Carbon Substrate. (Galwey & Gray) 1935
Oxygen Species Adsorbed on Oxides. Part 1: Formation and Reactivity of $(O^-)_s$ on MgO. (Tench, Lawson & Kibblewhite) 1169
Oxygen Species Adsorbed on Oxides. Part 2: Formation of $(O_3)_s$ on MgO. (Tench) . 1181
Solid-Solution Interface Equilibria for Aromatic Molecules Adsorbed from Non-aromatic Media, Aromatic Hydrocarbons. (Wright & Powell) 1908
Sorption of Carboxylate Ions by Strongly Basic Anion Exchangers. (Gregory & Semmens) 1045

PAGE

Sorption of Ethylene, Propylene and Cyclopropane in 5A Zeolite. Analysis of Equilibrium Isotherms. (Derrah, Loughlin & Ruthven) 1947
Sorption of Light Paraffins in Type-A Zeolites. Analysis and Interpretation of Equilibrium Isotherms. (Ruthven & Loughlin) 696
Spectral and Energetic Aspects of Water Adsorption by Li-, Na-, K- and Cs-X Zeolites. (Kiselev, Lygin & Staradubceva) 1793
Thermodynamics of Adsorption of a Series of Related Organic Molecules on Graphite and a Carbon Black. Part 1: Heat of Adsorption. (Dollimore, Heal & Martin) . . 832

I, 2 Biophysical Chemistry

I, 3 Catalysis (including heterogeneous and homogeneous catalysis and surface reactivity)
Acidic Sites on Silica-Alumina Catalysts with Reduced Aluminium Content. Infra-red and Thermogravimetric Studies. (Ballivet, Barthomeuf & Pichat) 1712
Catalytic Activities of Polynaphthoquinone, Containing various Metal Halides. Dehydrogenation of Formic Acid, Cyclohexane, Ammonia and Alcohols and Isomerization of Butene. (Iwasawa, Soma, Onishi & Tamaru) 1617
Catalytic Activity and Electron Configuration of the EDA Complexes of Phthalocyanine with Alkali Metals. Hydrogen Adsorption and the H_2—D_2 Exchange Reaction. (Naito, Ichikawa & Tamaru) 1451
Catalytic Activity and Selectivity of NaOH-Doped γ-Aluminas. Dehydration and Dehydrogenation of 3-Pentanol. (Chuang & Dalla Lana) 773
Chemisorption and Decomposition of Tetramethylsilane over Tungsten and Iron Surfaces. (Roberts & Ross) 221
Effect of Adsorbed Hydrocarbon on the Catalytic Exchange of n-Butane and Deuterium on Tungsten Films. (Arroyo & Kemball). 1029
Effect of Pressure Changes on the Oxidation Rate of Aluminium in the Temperature Range 323-673 K. (Hunt & Ritchie) 1413
Heterogeneous Decomposition of Hydrazine. Part 1: On a Supported Rhodium Catalyst. (Davis & Sayer) 1884
Homogeneous Catalysis by Pt(II)-Sn(II) Chloride Complex. Part 2: Mechanism of the Isomerization of n-Butanes. (Hirabayashi, Saito & Yasumori) 978
Hydrogenolysis of Ethane on Evaporated Copper-Nickel Alloy Films. (Plunkett & Clarke) 600
Hydrogenolysis of Saturated Hydrocarbons on Evaporated Platinum Films. (Dowie, Whan & Kemball) 2150
Infra-red Spectra and Catalytic Activity of Supported Molybdenum Hexacarbonyl. (Howe, Davidson & Whan) 2266
Low Temperature Parahydrogen Enrichment on Non-stoichiometric Rutile. (Richardson, Rudham, Tullett & Wagstaff) 2203
Oxidation of Aluminium by Nitrous Oxide in the Temperature Range 323-683 K. (Hunt & Ritchie) 1423
Role of the Catalyst Support in the Oxidation of Methane over Palladium. (Cullis, Nevell & Trimm) 1406
Surface and Bulk Reduction of Bismuth/Molybdenum Oxides Studied by Electron Spin Resonance Spectroscopy. (Burlamacchi, Martini & Ferroni) 1586

I, 4 Colloid Science (including birefringence, electrophoresis, light-scattering, sedimentation, thixotropy, soluble and insoluble monolayers)
Absorption and Emission Studies of Solubilization in Micelles. Part 1: Pyrene in Long-chain Cationic Micelles. (Dorrance & Hunter) 1312
Adhesion at the Alkane/Water and Ester/Water Interfaces. (Aveyard, Briscoe & Chapman) 10
Aerosol Formation from Sulphur Dioxide in the Presence of Ozone and Olefinic Hydrocarbons. (Cox & Penkett) 1735
Colloid and Surface Chemistry of Polymer Latices. Part 1: Adsorption and Wetting Behaviour of n-Alkanols. (Ottewill & Vincent) 1533
Contact Angle Studies of Some Low Energy Polymer Surfaces. (Murphy, Roberts & Ross) 1190
Dynamic Contact Angles. Part 7: Impact Spreading of Water Drops in Air and Aqueous Solutions of Surface Active Agents in Vapour on Smooth Paraffin Wax Surfaces. (Elliott & Ford) 1814
Fluorocarbon Surfactant/Water Mesomorphic Phases. Part 1: A Study of the Ammonium Perfluoro-octanoate+Water System by Optical Microscopy and Low Angle X-ray Diffraction. (Tiddy) 608
Fluorocarbon Surfactant/Water Mesomorphic Phases. Part 3: ^2H and ^2H Pulsed N.M.R. Study of Water in the Lamellar Phase of the Ammonium Perfluoro-octanoate. (Tiddy) 653
Fluorocarbon Surfactant/Water Mesomorphic Phases. Part 4: Study of the Distribution of Alkyl Chain Mobilities in the Lamellar Phase of the Sodium 12,12,13,13,14,14,14-

PAGE

Heptafluoromyristate+D_2O System by ^{19}F and ^{1}H Spin Echo Nuclear Magnetic Resonance. (Tiddy) . . . 670
Light Scattering Studies on n-Dodecyltrimethylammonium Bromide and n-Dodecylpyridinium Iodide. (Jones & Piercy) . . . 1839
Measurement of Coagulation Forces by Ultracentrifugation. (Melville & Willis) . 450
N.M.R. Relaxation Times of the Lamellar Phases of the System Sodium Caprylate/Decanol/Water. (Tiddy) . . . 369
Propagation of Surface Tension Changes over a Surface with Limited Area. (Lucassen & Barnes) . . . 2129
Salt Effects in Foam Films. (Ingram) . . . 2230
Solubilization of p-Xylene in Sodium Dodecyl Sulphate Micelles. (Fox, Robb & Smith) . 445
Stability of Aqueous Films on Hydrophobic Methylated Silica. (Blake & Kitchener) . 1435

I, 5 Combustion and Flames (including explosions, shock waves; see also I,9)
Interpretation of Collisional Ionization Rates in Flames. (Priest) . . . 661
Kinetics of Thermal Ionization of Alkali Metals in Flames. (Hayhurst & Telford) . 237

I, 6 Diffusion (including thermal diffusion, viscosity, thermal conductivity; see also II,8)
Comparison of the Transport Properties of Normal and Expanded Forms of a Cation-exchange Membrane. Part 2: Self-diffusion and Electrical Properties of Membranes in the Sodium Form in Concentrated Sodium Chloride. (Ferguson, Gardner & Paterson) 2021
Comparison of the Transport Properties of Normal and Expanded Forms of a Cation-exchange Membrane. Part 3: Application of Irreversible Thermodynamics and Nernst-Planck Theories to Membranes in Concentrated NaCl Solutions. (Gardner & Paterson) 2030
Double Membrane Diaphragm Technique for Absolute Measurements of Diffusion Coefficients. (Elrick, Smiles & Wooding) . . . 591
Effect of Salts on the Diffusion of Dissolved Non-electrolytes. (Tham & Gubbins) . 1339
Liquid State Thermal Conductivity of n-Paraffin Hydrocarbons. (Kandiyoti, Mclaughlin & Pittman) . . . 860
Lithium+Methylamine Solutions. Part 2: Viscosities. (Yamamoto, Nakamura & Shimoji) . . . 135
Physical Properties of Heavy-Oxygen Water. Absolute Viscosity of $H_2{}^{18}O$ between 15 and 35°C. (Kudish, Wolf & Steckel) . . . 2041
Pressure and Temperature Dependence of the Self-diffusion of Benzene. (McCool, Coolings & Woolf) . . . 1489
Pressure and Temperature Dependence of the Self-diffusion of Carbon Tetrachloride. (McCool & Woolf) . . . 1971
Self-diffusion and Conduction in Hydrogen-Bonded Solids. Part 1: Labile Proton Diffusion in Pivalic Acid. (Hood, Lockhart & Sherwood) . . . 736
Self-diffusion and Conduction in Hydrogen Bonded Solids. Part 2: Self-diffusion of $C_6H_5{}^{14}COOH$ and $C_6H_5COO^3H$ in Single Crystals of Benzoic Acid. (McGhie & Sherwood) . . . 533
Thermal Conductivities of Gaseous Mixtures Containing Hydrocarbons. Part 1: n-Butane, iso-Pentane and neo-Pentane, and Their Binary Mixtures With Argon. (Parkinson & Gray) . . . 1065
Thermal Conductivities of Gaseous Mixtures Containing Hydrocarbons. Part 2: Cyclopropane, Propene, But-l-ene and trans-But-2-ene, and Their Binary Mixtures with Argon. (Parkinson, Mukhopadhyay & Gray) . . . 1077
Transition State Theory of Zeolitic Diffusion. Diffusion of CH_4 and CF_4 in 5A Zeolite. (Ruthven & Derrah) . . . 2332
Viscosity of the Isotopes of Hydrogen and their Intermolecular Force Potentials. (Kestin, Ro & Wakeham) . . . 2316

I, 7 Electrochemistry (including electrolytes, activity coefficients, electrical conductivity, electrode processes)
Anodic Displacement of Adsorbed H in Electrochemisorption of Organic Molecules at Platinum. (Conway, MacDougall & Kozlowska) . . . 1566
Conductance Study on the Association Behaviour of Quaternary Ammonium Salts in Hydrogen-bonding Solvents. (Geoffredi & Triolo) . . . 2324
Dilute Aqueous Solutions of Unsymmetrical Quaternary Ammonium Iodides. Part 2: Conductance Measurements. (Lowe & Rendall) . . . 2191
Effect of Irradiation on Electrode Processes. Part 1: The Hydrogen Electrode in Dilute Solutions. (Airey) . . . 1299
Effect of Pressure on Electrical Conductivities of Fused Alkali Metal Halides and Silver Halides. (Cleaver, Smedley & Spencer) . . . 1720
Electrical Conductance in Molten KCl, KI, TlI and KI—TlI. (Buckle & Tsaoussoglou) . 1024
Electrical Conductivity of Tetracyanoquinodimethane Crystals. (Hurditch, Vincent & Wright) . . . 465
Electro-catalytic Reduction of Ethylene on Gold and other Substrates. (Byrne & Kuhn) . 1898

PAGE
Electro-catalytic Reduction of Ethylene on Platinum and Ruthenium. (Byrne & Kuhn) . 355
Electrocrystallization of Ruthenium and Electrocatalysis of Hydrogen Evolution. (Fleischmann & Grenness) 2305
E.M.F. Measurements with Solid Electrolyte Galvanic Cells on the Lime+Zirconia System. Determination of the Phase Relationships. (Pizzini & Morlotti) 1601
Hydrogen Ion Mobility in Aqueous Electrolyte Solutions. Comparison of Polarographic and Diaphragm Cell Methods. (Roberts & Northey) 1528
Interaction of Inert Gases with Ionic Melts. Solubility of He, Ar, N_2, O_2 and CH_4 in the $(Na,K)NO_3$ Eutectic Solvent. (Paniccia & Zambonin) 2083
Ionic Conductances in Aqueous Solution and an Empirical Conductance Equation. (Davies) 1117
Ionic Mobility in Microcapillaries. A Test for Anomalous Water Structures. (Anderson & Quinn) 744
Mechanistic Conclusions from the Curvature of Solvent Isotope Effects. (Albery & Davies) 167
Molar Conductivity of Sodium Fluoride in Aqueous Solution at 25°C. Applications of Pitts' Conductivity Equation. (Duer, Robinson & Bates) 716
Oxygen Electrode Reaction. Part 2: Behaviour at Ruthenium Black Electrodes. (Burke & O'Meara) 839
Plateau Potentials of the $\alpha+\beta$ Palladium Hydride Electrode at Temperatures between 25 and 195°C. (Dobson, Dagless & Thirsk) 764
Ring-Disc Electrodes. Part 16: A Comparison of Analytical and Numerical Solutions. (Albery & Drury) 456
Some Experimental Factors which Govern the Potential of the Palladium Hydride Electrode at 25 to 195°C. (Dobson, Dagless & Thirsk) 749
Standard Potentials of Silver/Silver Halide Electrodes and Ion Solvation in Glycerol+Water Mixtures at 25°C. (Khoo) 554
Studies of Free Radical Reactions in Molten Salts by Glow-Discharge Electrolysis. Part 1: Molten Nitrates. (Hamilton & Ingram) 785
The Oxygen Electrode. Part 3: Inhibition of the Oxygen Evolution Reaction. (Burke, McCarthy & O'Meara) 1086
Use of a Perchlorate-responsive Membrane Cell for the Determination of Activity Coefficients of Aqueous Perchloric Acid. (Mussini, Galli & Dubini-Paglia) . . . 1322

I, 8 Kinetics of Reactions (including photochemistry, reactions of gases, solids, liquids, two phase-systems, such as gas/solid; see also I,2)
Addition of Formaldehyde to Slowly Reacting Hydrogen+Oxygen Mixtures. (Baldwin, Fuller, Longthorn & Walker) 1362
Analysis of Kinetic Data for a First-order Reaction with Unknown Initial and Final Readings by the Method of Non-linear Least Squares. (Moore) 1890
Arrhenius Parameters of the Reaction $CH_3\cdot + C_2H_6 \rightarrow CH_4 + C_2H_5$. (Pacey & Purnell) . 1462
Chlorine Abstraction Reactions of Fluorine. Part 2: The Kinetic Determination of the Bond Dissociation Energy $D_0^\circ(CCl_2F—Cl)$. (Foon & Tait) 104
Chlorine Abstraction Reactions of Fluorine. Part 3: Thermochemical Data for Chlorofluoroalkanes. (Foon & Tait) 1121
Competitive Study of the Reactions $Br+RBr \rightarrow Br_2+R$ ($R = CF_3$, C_2F_5). (Ferguson & Whittle) 641
Decomposition of Ammonia in a Microwave Discharge. (Barker) 315
Electron Attachment and Negative Ion-Molecule Reactions in Nitrous Oxide. (Parkes) . 2103
Electron Spin Resonance Studies of Elementary Processes in Radiation- and Photochemistry. Part 8: Thermal and Photochemical Annealing of γ-irradiated Glycine. (Ayscough & Mach) 1139
Electron Spin Resonance Studies of Elementary Processes in Radiation- and Photochemistry. Part 9: Carboxylic Esters at Cryogenic Temperatures. (Ayscough & Oversby) 1153
Electron Spin Resonance Studies of Elementary Processes in Radiation- and Photochemistry. Part 10: Carboxylic Acid Anhydrides at Cryogenic Temperatures. (Ayscough & Oversby) 1164
Electron Spin Resonance Studies of Elementary Processes in Radiation-and Photo-chemistry. Part 11: Radical Reactions of α-Aminobutyric Acid between 26 and 440 K. (Ayscough & Olsen) 1635
Electron Spin Resonance Studies of Photo-Oxidation by Metal Ions in Rigid Media at Low Temperatures. (Greatorex & Kemp) 121
Electron Spin Resonance Studies of Photo-oxidation by Metal Ions in Rigid Media at low Temperatures. Part 4: Survey of Photo-oxidation by the Uranyl Ion. (Greatorex, Hill, Kemp & Stone) 2059
Energy Partition in the Photolysis of HI and of H_2S. (Oldershaw, Porter & Smith) . . 2218

PAGE

Excited Products in the Photodissociation of Methyl Thiocyanate and Isothiocyanate in the Vacuum Ultra-violet. (D'Amario, Di Stefano, Lenzi & Mele) 940
Flash Photolysis and Electron Spin Resonance Study of *p*-Chloranil. (Wong, Fabes, Green & Wan) 2211
Flash Photolysis of H_2S. (Langford & Oldershaw) 1550
Flash Photolysis of Naphthalenedicarboxylic Anhydrides. (Lohmann) 814
Formation of Nitrous Acid in a Gas-phase Stirred Flow Reactor. (Graham & Tyler) . 683
Free Radical Addition to Olefins. Part 8: Addition of n-Heptafluoropropyl Radicals to Fluoro-ethylenes. (Tedder, Walton & Winton) 160
Free Radical Addition to Olefins. Part 9: Addition of Methyl Radicals to Fluoro-ethylenes. (Tedder, Walton & Winton) 1866
Kinetic Equations for Consecutive Reversible Reactions with Special Reference to Protein Denaturations. (Hijazi & Laidler) 1235
Kinetic Hydrogen Isotope Effect in the Fluorination of H_2, CH_4 and $CHCl_3$. (Foon, Reid & Tait) 1131
Kinetic Investigation of the Lanthanide(III)-Nitrate Complexation Reaction. (Silber, Scheinin, Atkinson & Grecsek) 1200
Kinetics and Thermodynamics of the Complex-formation of Nickel(II) and Cobalt(II) Ions with Ammonia and Pyridine-2-azodimethylaniline in Water, at Pressures from 1 bar to 2 kbar. (Caldin, Grant & Hasinoff) 2247
Kinetics and Thermodynamics of the Formation of the Donor-Acceptor Complex of Tetracyanoethylene with Hexamethylbenzene in Solution, by a Microwave Temperature-jump method. (Caldin, Crooks, O'Donnell, Smith & Toner) 849
Kinetics of Hydrogen Abstraction by Difluoroamino Radicals from n-Propyl Formate and the n-Propoxycarbonyl Radical Decomposition. (Cadman, White & Trotman-Dickenson) 506
Kinetics of Reaction of Metal Alkyls with Alkenes. Part 7: n-Butyl Lithium and N: N: N′: N′-Tetramethyl Ethylene Diamine with Butadiene. (Hay, McCabe & Robb) . 1
Kinetics of Reaction of Metal Alkyls with Alkenes. Part 8: Oligomerization of Ethylene by n–Butyl-lithium–*NNN′N′*-Tetramethylethylenediamine. (Hay, McCabe & Robb) . 1227
Kinetics of Ternary Complex Formation between Magnesium Species and 5-Nitrosalicylic Acid. (Cayley & Hague) 2259
Kinetics of Ternary Complex Formation Between Nickel(II) Species and Pyridine-2-azo-p-dimethylaniline. (Cobb & Hague) 932
Kinetics of the Oxidation of Formic Acid by Aquomanganese(III) Ions in Aqueous Perchlorate Media. (Wells & Whatley) 434
Kinetics of the Reaction Between HBr and CF_3Br. Determination of the Bond Dissociation Energy $D(CF_3—Br)$. (Ferguson & Whittle) 295
Kinetics of the Reaction Between HBr and C_2F_5Br. Determination of the Bond Dissociation Energy $D(C_2F_5—Br)$. (Ferguson & Whittle) 306
Kinetics of the Reaction between Methyl Iodide and Silver Nitrate in Aqueous Solution. (Huq) 1824
Kinetics of the Reactions of Hydrogen Atoms with Ethylene and Vinyl Fluoride. (Teng & Jones) 1267
Kinetics of the Reactions of Oxygen Atoms and Nitrogen Atoms with Sulphur Trioxide. (Jacob & Winkler) 2077
Lithium Hydroxide and the Dissociation Kinetics of Water Vapour. (Cathro & Mackie). 150
Negative Ion Reactions in Nitrous Oxide+Carbon Dioxide Mixtures. (Parkes) . . 2121
Oxidation of Ferrous Ions by Hydroxyl Radicals. (Jayson, Parsons & Swallow) . . 2053
Oxygen Negative Ion Reactions with Carbon Dioxide and Carbon Monoxide. (Parkes) . 627
Photochemistry and Radiation Chemistry of Anthraquinone-2-sodium-sulphonate in Aqueous Solution. Part 1: Photochemical Kinetics in Aerobic Solution. (Clark & Stonehill) 577
Photochemistry and Radiation Chemistry of 9,10-Anthraquinone-2-sodium Sulphonate in Aqueous Solution. Part 2: Photochemical Products. (Clark & Stonehill) . . . 1676
Photochemistry of Anhydrides. Part 1: Photolysis of Perfluoroacetic Anhydride Vapour: A New Source of CF_3 Radicals. (Chamberlain & Whittle) 88
Photochemistry of Anhydrides. Part 2: Photolysis of Perfluoropropionic Anhydride: A New Source of C_2F_5 Radicals. (Chamberlain & Whittle) 96
Photochemistry of Aromatic Compounds. Part 5: Measurement of Quantum Yields of Triplet State Formation by Flash Photolysis. (Vander Donckt & Leitaer) . . . 112
Photochemistry of 1,3-Dichloro-tetrafluoroacetone. Part 1: The Singlet State. (Hackett & Phillips) 323
Photochemistry of 1,3-Dichloro-tetrafluoroacetone. Part 2: The Triplet State. (Hackett & Phillips) 329
Photochemistry of 1,3-Dichloro-tetrafluoroacetone. Part 3: Quenching of the Excited States. (Hackett & Phillips) 335
Photolysis of Dibromodifluoromethane at 265 nm. (Walton) 1559

PAGE

Prediction of Transition State Configuration in Concerted Reactions from the Energy Requirements of the Separate Processes. (Critchlow) 1774
Primary Photochemical Processes in Aromatic Molecules. Part 15: The Photochemistry of Aromatic Carbonyl Compounds in Aqueous Solution. (Ledger & Porter) . 539
Protonation of Aromatic Carboxylic Acids in the First Excited Singlet State. (Watkins) . 28
Quenching and Isomerization in the Photolysis of trans-But-2-ene and cis-Pent-2-ene at 185 nm and 203 nm. (Borrell & Cervenka) 345
Quenching Effects Upon the Life-Time of Protonated 2-Naphthamide S_1 in Aqueous Solution. (Hussain & Wyatt) 130
Radiation Chemistry and Photochemistry of Oxychlorine Ions. Part 1: Radiolysis of Aqueous Solutions of Hypochlorite and Chlorite Ions. (Buxton & Subhani) . . 947
Radiation Chemistry and Photochemistry of Oxychlorine Ions. Part 2: Photodecomposition of Aqueous Solutions of Hypochlorite Ions. (Buxton & Subhani) . . . 958
Radiation Chemistry and Photochemistry of Oxychlorine Ions. Part 3: Photodecomposition of Aqueous Solutions of Chlorite Ions. (Buxton & Subhani) 970
Rate of Combination of Trimethylsilyl Radicals in the Gas Phase. (Cadman, Tilsley & Trotman-Dickenson) 1849
Reaction between Ammonia and Nitrogen Dioxide. (Bedford & Thomas) 2163
Reaction of C_2F_5 Radicals with HCl. Determination of the Bond Dissociation Energy $D(C_2F_5—H)$. (Bassett & Whittle) 492
Reaction of Hot Hydrogen Atoms with COS. (Oldershaw & Porter) 709
Reaction of Oxygen Atoms with Alkynes. Part 1: The Butyne-2 Reaction. (Avery & Heath) 512
Reactions of CF_3 Radicals with Benzotrifluoride and the C—H Bond Strength in $C_6H_5CF_3$ and C_6H_6. (Bérces, Márta & Szilágyi) 867
Reactions of Cyanogen Radicals. Part 2: Reactions with $(CN)_2$ and O_2. (Bullock & Cooper) 2175
Reactions of Cyanogen Radicals. Part 3: Arrhenius Parameters for Reactions with Alkanes. (Bullock & Cooper) 2185
Reactions of Group 3 Metal Alkyls in the Gas Phase. Part 8: Homogeneous Thermal Unimolecular Elimination of Ethylene from Triethylaluminium. (Cocks & Egger) . 423
Reactions of Group 3 Metal Alkyls in the Gas Phase. Part 9: Addition of Propene to Trimethylaluminium. (Egger) 1017
Reactions of Perfluoroethyl Radicals with Propane and Neopentane. (Whytock, Clarke & Gray) 689
Reactions of the O^- Negative Ion with Hydrogen and the Lower Hydrocarbons. (Parkes) 613
Reactions of Trifluoromethyl Radicals with Organic Halides. Part 7: Chloro- and Fluoro-chloro-ethanes. (Quick & Whittle) 878
Reduction of Methylene Blue by Dihydro-compounds, Catalyzed by Aliphatic Amines, and the Reaction of Methylene Blue with Aliphatic Amines. (Iwasawa, Soma, Onishi & Tamaru) 1697
Role of Metals in Enzymatic Reactions. Part 5: Kinetics of Ternary Complex Formation Between Magnesium and Manganese(II) Species and 8-Hydroxyquinoline. (Hague, Martin & Zetter) 37
Self-heating and Spontaneous Ignition in the Oxidation of Gaseous Hydrazine. (Gray & O'Neill) 564
Specificity in the Interaction between some Chiral Co(III) Complex Ions and DNA in Aqueous Solution. (Ascoli, Branca, Mancini & Pipisa) 1213
Thermal Decomposition of Ethyl, Isopropyl and t-Butyl Fluorides in the Gas Phase. (Dastoor & Emovon) 2098
Thermal Isomerization of Cyclobutenes. Part 19: 3,3,4,4-Tetrafluorocyclobutene. (Frey, Hopkins & Vinall) 1874
Thermal Unimolecular Decomposition of 1-Ethylcyclohexa-1,4-diene, 1,2-Dimethylcyclohexa-1,4-diene and Bicyclo[4,3,0]nona-$1^{(6)}$,3-diene. (Cocks, Frey & Hopkins) . 1287
Threshold Energy in the Abstraction Reaction between Hydrogen Atoms and Cyclohexane. (Fink & Nicholas) 1706

I, 9 Polymers and Polymerization (including physical properties of polymers and their solutions; see also I,8)
Analysis of the Reversible Aggregation of Macromolecules in a Centrifugal Field. (Skerrett) 1328
Effects of Salts of Metals on Vinyl Polymerization. Part 8: Polymerization of Vinyl Chloride in the presence of Ferric Chloride. (Bengough & Chawdry) 1807
Fluorescence Depolarization Measurements of Polymer Segmental Mobility. (North & Soutar) 1101
Kinetics of Anionic Polymerization of o-Methylstyrene in 2-Methyltetrahydrofuran and Tetrahydrofuran. (Hirohara, Nakayama, Kawabata & Ise) 51
Kinetics of Anionic Polymerizations of Styrene and Its m- and p-Derivatives: Hammett's Relations. (Hirohara, Nakayama & Ise) 58

PAGE
Microwave Absorption in a Helical Polypeptide Molecule. (Davies, Maurel & Price) . 1041
Photo-initiation of Polymerization by Manganese(III) Chelates. (Bamford & Ferrar) . 1243
Photolytic Decomposition of Polymethacrylates. Part 3: Poly(ethyl methacrylate). (MacCallum & Schoff) 499
Reaction Kinetics of Polymer Substituents. Neighbouring-substituent Effects in Pairing Reactions. (Boucher) 2281
Reaction Kinetics of Polymer Substituents. Neighbouring-substituent Effects in Single-substituent Reactions. (Boucher) 2295
Surface-Photopolymerization from Hexachlorobutadiene. (Kunz & Wright) . . 140
Telomerization of Methyl Methacrylate with Bromotrichloromethane. (Barson, Luxton & Robb) 1666
Tetrakis(triphenyl phosphite)nickel(0)+Maleic Anhydride: Ligand Exchange and Free-radical Formation. (Bamford & Hughes) 1474

I, 10 Radiolysis (including nuclear transformation in solids, neutron capture, etc.)
Dissociation Equilibrium of Nitroform in Mixtures of Polar Solvents Studied by Pulse Radiolysis. (Chaudhri & Asmus) 1010
Dissociation Equilibrium of Nitroform in Polar Solvents Studied by Pulse Radiolysis. (Chaudhri & Asmus) 385
Effects of Gamma Radiation on Vitamin B12 Systems. (Blackburn, Cox & Phillips) . 1687
Energy Partition in the γ-Radiolysis of Gaseous H_2S+N_2, H_2S+Ar and H_2S+Xe Mixtures. (Ahmad, Huyton & Woodward) 1857
Interpretation of the Effects of Ionic Scavengers at High L.E.T. in Irradiated Cyclohexane, Based on Ambipolar Diffusion. (Burns & Reed) 67
Nanosecond Pulse Radiolysis of Acetone. Kinetic and Thermodynamic Properties of Some Aromatic Radical Cations. (Rodgers) 1278
Pulse Radiolysis of 9,10-Anthraquinones. Part 1: Radicals. (Hulme, Land & Phillips) . 1992
Pulse Radiolysis of 9,10-Anthraquinones. Part 2: Triplet Excited States. (Hulme, Land & Phillips) 2003
Pulse Radiolysis of Hexamethylphosphoric Triamide. (Nauta & Van Huis) . . . 647
Radiation Chemistry of Butan-1-ol. (Ackerman, Basson & Van Der Linde) . . . 1258
Radiolysis of Carboxylic Compounds. Part 1: Comparison of Potassium Acetate and Acetic Acid Radiolysis. (Lukáč, Teplý & Vacek) 1377
γ-Radiolysis of Diethyl Succinate. (Mills & Nosworthy Peto) 1626
Reactions of the HO_2 Radical in Aqueous Solution with Bromine and Related Compounds. (Sutton & Downes) 1498
Unstable Intermediates. Part 107: Radiation Damage Products in Choline Chloride. (Symons) 216

I, 11 Solid-state Chemistry
Crystal Growth in Manganese-Doped Magnesium Oxide Powders. (Guilliatt & Brett) . 429
Dislocations in Orthorhombic Minerals. Part 1: Naturally-occurring Barytes. (Williams, Tennakoon, Thomas & Jacobs) 1987
Electrical Conduction in Ammonium Perchlorate. (Owen, Thomas & Williams) . . 2356
Influence of Framework Charge Density on Ion-exchange Properties of Zeolites. (Barrer & Klinowski) 1956
Lattice Defects in Plastic Organic Crystals. Part 7: Isotope Mass Effects in Self-diffusion in Cyclohexane. (Chadwick & Sherwood) 47
Magnetic Studies of Zeolites. Part 1: The Magnetic Properties of CoY and CoA. (Egerton, Hagan, Stone & Vickerman) 723
Self- and Impurity Diffusion in Anthracene Single Crystals. (Burns & Sherwood) . . 1036

I, 12 Thermodynamic and Equilibrium Properties (including multiphase systems; see also I,7)
Activity Coefficients for the System HCl—$MnCl_2$—H_2O at 25°C. (Downes) . . . 1964
Apparent Molar Volumes of Multiply Charged Electrolytes. (Indelli & Zamboni) . . 1831
Complex Formation in Molten Salts. Part 2: Association Constants of Silver Chloro-complexes in Molten Eutectic $NaNO_3+Ba(NO_3)_2$*. (Gaur & Bansal) . . . 1368
Component Interactions in Aqueous Acetone. (Fox) 1294
Cryoscopic Comparison of Nitric and Deuteronitric Acids as Solvents. (Kureishi & Wyatt) 676
Dipole Moments of Electron Donor-Acceptor Complexes of Iodine with Oxygen Bases. (Sobczyk & Danel) 1544
Drop Calorimetric Determination of Enthalpy Content of the Systems AgI+MI (M = K, Rb, Cs, NH_4, $(CH_3)_4N$). (Johnson & Dudley) 2015
Effect of the Solution Vapour Pressure on the Temperature Dependence of the Dissociation Constant of Acetic Acid in Water. (Lown & Thirsk) 1982
Enthalpy of Solvation of Carbonium Ions. (Gold) 1611

PAGE

Excess Enthalpies and Weak Interactions in Liquid Mixtures of Methylene Chloride with Benzene, Toluene and Xylenes. (Nigam & Mahl) 1508
Excited Singlet and Triplet pK Values of Xanthone in Aqueous Solution. (Ireland & Wyatt) 1053
Flame-Photometric Determination of the Standard Enthalpies of Formation of $Al(OH)_2$ and AlO. (Jensen & Jones) 259
Heats of Dilution of Sub-micellar Aqueous Surfactant Solutions. (Birch & Hall) . . 2350
Ion Association of Rubidium Chloride in Aqueous Solutions at 25°C. (Dunsmore, Jalota & Paterson) 1583
Ionic Association of Some Tetraheptylammonium and Tetraoctylphosphonium Salts in Ethanol Studied by Vapour Pressure Osmometry. (Paligorić & Gal) 1093
Kinetic Isotope Effects. Part 7: Ionization of (d)-Phenylmethylacetophenone. (Earls, Jones & Rumney) 925
Mass Spectrometric Determination of the Thermodynamic Properties of the Vapour Species from Alumina. (Farber, Srivastava & Uy) 249
Measurements of Heats of Combustion by Flame Calorimetry. Part 8: Methane, Ethane, Propane, n-Butane and 2-Methylpropane. (Pittam & Pilcher) 2224
Microcalorimetric Studies: Enthalpies of Formation of Amino-acid and Peptide Complexes of Copper(II) and Nickel(II). (Tipping & Skinner) 1764
Microcalorimetric Studies. Thermal Decomposition and Iodination of Metal Carbonyls. (Connor, Skinner & Virmani) 1754
Phase Diagram and Thermodynamic Data for the Hydrogen/Vanadium System. (Griffiths, Pryde & Righini-Brand) 2344
Physico-chemical Studies in Non-aqueous Solvents. Part 6: Cryoscopic Studies of 1 : 1 Electrolytes in Formamide. (Paul, Singla & Gill) 1894
Polarographic Determination of Hydrogen Ion Activities in Strongly Acidic Media: A New Acidity Function. (Janata & Jansen) 1656
Solid/Liquid Phase Equilibria and Solid Compound Formation in Mixtures of Dimethylsulphoxide with CCl_4, $CHCl_3$, and CCl_3CHCl_2. (Goates, Ott, Reeder & Lamb) . 2171
Solubility of Cadmium Cyanide and the Formation Constants of the Cadmium-Cyanide System in Dimethylformamide at 25°C. (Jagtiani, Siddiqi & Tyrrell) 2090
Solubility of p-Nitroaniline and the Basic Strength of Aqueous Alcohols (and other Oxygen-Containing Compounds. (Sierra, Teixidó & Wyatt) 290
Standard Enthalpy of Formation of Crystalline Gold(III) Oxide. (Ashcroft & Schwarzmann) 1360
Studies in Ion Solvation in Non-aqueous Solvents and their Aqueous Mixtures. Part 14: Free Energies of the Alkali-metal Chlorides from Water to 10-99 % (w/w) Methanol + Water Mixtures at 25°C. (Feakins & Voice) 1390
Thermodynamic Studies of Hydrochloric Acid in Propan-2-ol from Electromotive Force Measurements between 5 and 45°C. (Roy, Vernon & Bothwell) 2047
Thermodynamic Study of Disorder in Zinc Fluoride Tetrahydrate. (Cook, Davies & Staveley) 1384
Thermodynamics of Autoionization of Methanol + Water Mixtures. (Parsons & Rochester) 523
Use of p-Nitroaniline to Determine Protonation Equilibrium Constants of Oxygen-containing Molecules in Aqueous Solution. (Wells) 993
Vapour-Liquid Equilibrium and Excess Free Energies for Benzene + Dioxan and Carbon Tetrachloride + Dioxan Systems. (Deshpande & Oswal) 1059

AUTHOR INDEX—VOLUME 68, 1972

PAGE

Ackerman, L. G. J., Basson, R. A. and Van Der Linde, H. J. 1258
Ahmad, M., Huyton, D. W. and Woodward, T. W. 1857
Airey, P. L. 1299
Albery, W. J. and Davies, M. H. . . 167
— **and Drury, J. S.** 456
Alexander, C. S. and Pritchard, J. . . 202
Anderson, John L., and Quinn, John A. . 744
Ascoli, F., Branca, M., Mancini, C. and Pispisa, B. 1213
Ashcroft, S. J. and Schwarzmann, E. . 1360
Asmus, K.-D. See *Chaudhri, Shamin A.* and
Atkinson, G. See *Silber, H. B., Scheinin, N., Atkinson, G.* and *Grecsek, J. J.*
Avery, H. E. and Heath, S. J. . . . 512
Aveyard, R. and Briscoe, B. J. . . . 478
—**and Briscoe, B. J. and Chapman, J.** . 10
Ayscough, P. B. and Mach, K. . . . 1139
— **and Olsen, K. J.** 1635
— **and Oversby, J. P.** 1153, 1164

Baldwin, R. R., Fuller, A. R., Longthorn, D. and Walker, R. W. 1362
Ballivet, D., Barthomeuf, D. and Pichat, P. 1712
Bamford, C. H. and Ferrar, A. N. . . 1243
— **and Hughes, E. O.** 1474
Bansal, N. P. See *Gaur, H. C.* and
Baranowski, B., Lewis, F. A., Majchrzak, S. and Wisniewski, R. . . . 824
Barker, R. 315
Barnes, G. T. See *Lucassen, J.* and
Barrer, R. M. and Klinowski, J. . . 73, 1956
Barson, C. A., Luxton, A. R. and Robb, J. C. 1666
Barthomeuf, D. See *Ballivet, D., Barthomeuf, D.* and *Pichat, P.* . . . .
Barton, S. S., Beswick, P. G. and Harrison, B. H. 1647
Bassett, J. E. and Whittle, E. . . . 492
Basson, R. A. See *Ackerman, L. G. J., Basson, R. A.* and *Van Der Linde, H. J.*
Bates, Roger G. See *Duer, Wayne C., Robinson, R. A.* and
Bedford, G. and Thomas, J. H. . . . 2163
Bengough, W. I. and Chawdry, N. M. . 1807
Berces, T., Marta, F. and Szilagyi, I. . 867
Beswick, P. G. See *Barton, S. S., Beswick, P. G.* and *Harrison, B. H.*
Birch, B. J. and Hall, D. G. 2350
Blackburn, R. Cox, D. L. and Phillips, G. O. 1687
Blake, T. D. and Kitchener, J. A. . . 1435
Borrell, Peter and Cervenka, A. . . . 345
Bothwell, A. L. M. See *Roy, R. N., Vernon, W.* and
Boucher, E. A. 2281, 2295
Branca, M. See *Ascoli, F., Branca, M., Mancini, C.* and *Pispisa, B.*

PAGE

Brett, N. H. See *Guilliatt, I. F.* and
Briscoe, B. J. See *Aveyard, R.* and
— See *Aveyard, R., Briscoe, B. J.* and *Chapman, J.*
Bruce, Linda A. and Sheridan, Margaret H. 997
Buckle, E. R. and Tsaoussoglou, P. E. . 1024
Bullock, G. E. and Cooper, R. . . 2175, 2185
Burke, L. D., McCarthy, F. and O'Meara, T. O. 1086
— **and O'Meara, T. O.** 839
Burlamacchi, L., Martini, G. and Ferroni, E. 1586
Burns, G. and Sherwood, J. N. . . . 1036
Burns, W. G. and Reed, C. R. V. . . . 67
Buxton, G. V. and Subhani, M. S. 947, 958, 970
Byrne, M. and Kuhn, A. T. . . . 355, 1898

Cadman, P., Tilsley, G. M. and Trotman-Dickenson, A. F. 1849
— **White, A. J. and Trotman-Dickenson, A. F.** 506
Caldin, E. F., Crooks, J. E., O'Donnell, D., Smith, D. and Toner, S. . . 849
— **Grant, M. W. and Hasinoff, B. B.** . 2247
Cathro, W. S. and Mackie, J. C. . . . 150
Cayley, C. R. and Hague, D. N. . . . 2259
Cervenka, A. See *Borrell, Peter* and
Chadwick, A. V. and Sherwood, J. N. . 47
Chamberlain, G. A. and Whittle, E. 88, 96
Chapman, J. See *Aveyard, R., Briscoe, B. J.* and
Chaudhri, Shamin A. and Asmus, K.-D. 385, 1011
Chawdry, N. M. See *Bengough, W. I.* and
Chuang, T. T. and Dalla Lana, I. G. . 773
Clark, K. P. and Stonehill, H. I. . 577, 1676
Clarke, J. D. See *Whytock, D. A., Clark, J. D.* and *Gray, P.*
Clarke, J. K. A. See *Plunkett, T. J.* and
Cleaver, B., Smedley, S. I. and Spencer, P. N. 1720
Clint, J. H. 2239
Cobb, M. A. and Hague, D. N. . . . 932
Cocks, Alan T. and Egger, Kurt W. . 423
Cocks, A. T., Frey, H. M. and Hopkins, R. G. 1287
Collings, A. F. See *McCool, M. A., Collings, A. F.* and *Woolf, L. A.*
Connor, J. A., Skinner, H. A. and Virmani, Y. 1754
Conway, B. E., MacDougall, B. and Kozlowska, H. A. 1566
Cook, R. O., Davies, A. and Staveley, L. A. K. 1384
Cooper, R. See *Bullock, G. E.* and
Cortes Arroyo, Antonio and Kemball, C. . 1029
Cox, D. L. See *Blackburn, R., Cox, D. L.* and *Phillips, G. O.*
Cox, R. A. and Penkett, S. A. . . . 1735
Critchlow, J. E. 1774

PAGE

Crooks, J. E. See *Caldin, E. F., Crooks, J. E., O'Donnell, D., Smith, D.* and *Toner, S.*
Cullis, C. F., Nevell, T. G. and **Trimm, D. L.** 1406

Dadiza, Y. M. and **Salch, J. M.** . 269, 1513
Dagless, M. N. See *Dobson, J. V., Dagless, M. N.* and *Thirsk, H. R.*
Dalla Lana, I. G. See *Chuang, T. T.* and
D'Amario, P., Di Stefano, G., Lenzi, M. and **Mele, A.** 940
Danel, J. See *Sobczyk, L.* and
Dastoor, P. N. and **Emovon, E. U.** . 2098
Davidson, D. E. See *Howe, R. F., Davidson, D. E.* and *Whan, D. A.*
Davies, A. See *Cook, R. O., Davies, A.* and *Staveley, L. A. K.*
Davies, Cecil W. 1117
Davies, M. H. See *Albery, W. J.* and
Davies, Mansel, Maurel, P. and **Price, A. H.** 1041
Davis, K. M. C. and **Sayer, C. F.** . . 1884
Derrah, R. I., Loughlin, K. F. and **Ruthven, D. M.** 1947
— See *Ruthven, D. M.* and
Deshpande, D. D. and **Oswal, S. L.** . 1059
Devi, A. See *Morrow, B. A.* and
Di Stefano, G. See *D'Amario, P., Di Stefano, G., Lenzi, M.* and *Mele, A.*
Dobson, J. V., Dagless, M. N. and **Thirsk, H. R.** 749, 764
Dollimore, D., Heal, G. R. and **Martin, D. R.** 832
Dorrance, R. C. and **Hunter, T. F.** . 1312
Dowie, R. S., Whan, D. A. and **Kemball, C.** 2150
Downes, C. J. 1964
Downes, M. T. See *Sutton, H. C.* and
Drury, J. S. See *Albery, W. J.* and
Dubini-Paglia, E. See *Mussini, T., Galli, R.* and
Dudley, J. See *Johnson, K. E., Sime, S. J.* and
Duer, Wayne C., Robinson, R. A. and **Bates, Roger G.** 716
Dunsmore, H. S., Jalota, S. K. and **Paterson, R.** 1583

Earls, D. W., Jones, J. R. and **Rumney, T. G.** 925
Egerton, T. A., Hagan, A., Stone, F. S. and **Vickerman, J. C.** . . . 723
Egger, Kurt W. 1017
— See *Cocks, Alan T.* and
Elliott, T. A. and **Ford, D. M.** . . . 1814
Elrick, D. E., Smiles, D. E. and **Wooding, R. A.** 591
Eltekov, Yu. A., Khopina, V. V. and **Kiselev, A. V.** 889
Emovon, E. U. See *Dastoor, P. N.* and

Fabes, L. See *Wong, S. K., Fabes, L., Green, W. J.* and *Wan, J. K. S.*
Farber, Milton, Strivastava, R. D. and **Uy, O. M.** 249
Feakins, D. and **Voice, P. J.** 1390
Ferguson, H., Gardner, C. R. and **Paterson, R.** 2021
Ferguson, K. C. and **Whittle, E.** 295, 306, 641

PAGE

Ferrar, A. N. See *Bamford, C. H.* and
Ferroni, E. See *Burlamacchi, L., Martini, G.* and
Findenegg, G. H. 1799
Fink, R. D. and **Nicholas, J. E.** . . . 1706
Fleischmann, M. and **Grenness, M.** . . 2305
Foon, Ruby, Reid, G. P. and **Tait, K. B.** . 1131
— and **Tait, K. B.** 104, 1121
Ford, D. M. See *Elliott, T. A.* and
Fox, K. K., Robb, I. D. and **Smith, R.** . 445
Fox, Malcolm F. 1294
Frey, H. M., Hopkins, R. G. and **Vinall, I. C.** 1874
— See *Cocks, A. T., Frey, H. M.* and *Hopkins, R. G.*
Fuller, A. R. See *Baldwin, R. R., Fuller, A. R., Longthorn, D.* and *Walker, R. W.*

Gal, I. J. See *Paligoric, I.* and
Galli, R. See *Mussini, T., Galli, R.* and *Dubini-Paglia, E.*
Galwey, A. K. and **Gray, P.** 1935
Gardner, C. R. and **Paterson, R.** . . . 2030
— See *Ferguson, H., Gardner, C. R.* and *Paterson, R.*
Gaur, H. C. and **Bansal, N. P.** . . . 1368
Giles, J. See *Tench, A. J.* and
Gill, Dip Singh. See *Paul, Ram Chand, Singla, Jai Parkash* and
Goates, J. R., Ott, J. B., Reeder, J. and **Lamb, J. D.** 2171
Goffredi, M. and **Triolo, R.** 2324
Gold, V. 1611
Goymour, Clarence G. and **King, David A.** 280
Graham, R. F. and **Tyler, B. J.** . . . 683
Grant, M. W. See *Caldin, E. F., Grant, M. W.* and *Hasinoff, B. B.*
Gray, P. and **O'Neill, E. P.** 564
— See *Galwey, A. K.* and
— See *Parkinson, C.* and
— See *Parkinson, C., Mukhopadhay, P.* and
— See *Whytock, D. A., Clarke, J. D.* and
Greatorex, D., Hill, R. J., Kemp, T. J. and **Stone, T. J.** 2059
— and **Kemp, T. J.** 121
Grecsek, J. J. See *Silber, H. B., Scheinin, N., Atkinson, G.* and
Green, W. J. See *Wong, S. K., Fabes, L., Green, W. J.* and *Wan, J. K. S.*
Gregory, J. and **Semmens, M. J.** . . . 1045
Grenness, M. See *Fleischmann, M.* and
Griffiths, R., Pryde, J. A. and **Righini-Brand, A.** 2344
Gubbins, K. E. See *Tham, M. K.* and
Guilliatt, I. F. and **Brett, N. H.** . . . 429

Hackett, Peter A. and **Phillips, David** 323, 329, 335
Hagan, A. See *Egerton, T. A., Hagan, A., Stone, F. S.* and *Vickerman, J. C.*
Hague, D. N., Martin, S. R. and **Zetter, M. S.** 37
— See *Cayley, G. R.* and
— See *Cobb, M. A.* and
Hall, D. G. See *Birch, B. J.* and
Hamilton, L. W. and **Ingram, M. D.** . 785

PAGE

Harrison, B. H. See *Barton, S. S., Beswick, P. G.* and
Hasinoff, B. B. See *Caldin, E. F., Grant, M. W.* and
Hay, J. N., McCabe, J. F. and **Robb, J. C.** 1, 1227
Hayhurst, A. N. and **Telford, N. R.** . 237
Heal, G. R. See *Dollimore, D., Heal, G. R.* and *Martin, D. R.*
Heath, S. J. See *Avery, H. E.* and
Hijazi, N. H. and **Laidler, K. J.** . . . 1235
Hill, R. J. See *Greatorex, D., Hill, R. J., Kemp, T. J.* and *Stone, T. J.*
Hirabayashi, Kazuo, Saito, Shuji and **Yasumori, Iwao** 978
Hirohara, H., Nakayama, M. and **Ise, N.** 58
— **Nakayama, M., Kawabata, R.** and **Ise, N.** 51
Hockey, J. A. See *Jones, P.* and
Hood, G. M., Lockhart, N. C. and **Sherwood, J. N.** 736
Hopkins, R. G. See *Cocks, A. T., Frey, H. M.* and
— See *Frey, H. M., Hopkins, R. G.* and *Vinall, I. C.*
Howe, R. F., Davidson, D. E. and **Whan, D. A.** 2266
— **Liddy, J. P.** and **Metcalfe, A.** . . 1595
— and **Metcalfe, A.** 393
Hughes, E. O. See *Bamford, C. H.* and
Hulme, B. E., Land, E. J. and **Phillips, G. O.** 1992, 2003
Hunt, G. L. and **Ritchie, I. M.** . 1413, 1423
Hunter, T. F. See *Dorrance, R. C.* and
Huq, Rokeya 1824
Hurditch, R. J., Vincent, Vera M. and **Wright, J. D.** 465
Hussain, S. K. and **Wyatt, P. A. H.** . 130
Huyton, D. W. See *Ahmad, M., Huyton, D. W.* and *Woodward, T. W.*

Ichikawa, M. See *Naito, S., Ichikawa, M.* and *Tamaru, K.*
Indelli, A. and **Zamboni, R.** 1831
Ingram, B. T. 2230
Ingram, M. D. See *Hamilton, L. W.* and
Ireland, J. F. and **Wyatt, P. A. H.** . 1053
Ise, N. See *Hirochara, H., Nakayama, M.* and
— See *Hirohara, H., Nakayama, M., Kawabata, R.* and
Iwasawa, Y., Soma, M., Onishi, T. and **Tamaru, K.** 1617, 1697

Jackson, P. and **Parfitt, G. D.** . 896, 1443
Jacob, A. and **Winkler, C. A.** . . 2077
Jacobs, P. W. M. See *Williams, J. O., Tennakoon, D. T. B., Thomas, J. M.* and
Jagtiani, I. A., Siddiqi, I. W. and **Tyrrell, H. J. V.** 2090
Jalota, S. K. See *Dunsmore, H. S., Jalota, S. K.* and *Paterson, R.*
Janata, Jiri and **Jansen, Geertje** . . 1656
Jansen, Geertje. See *Janata, Jiri* and
Jayson, G. G., Parsons, B. J. and **Swallow, A. J.** 2053
Jensen, D. E. and **Jones, G. A.** . . 259

PAGE

Johnson, K. E., Sime, S. J. and **Dudley, J.** 2015
Jones, G. A. See *Jensen, D. E.* and
Jones, J. R. See *Earls, D. W., Jones, J. R.* and *Rumney, T. G.*
Jones, M. N. and **Piercy, J.** 1839
Jones, P. and **Hockey, J. A.** . . . 907
Jones, W. E. See *Teng, L.* and

Kandiyoti, R., McLaughlin, E. and **Pittman, J. F. T.** 860
Kawabata, R. See *Hirohara, H., Nakayama, M., Kawabata, R.* and *Ise, N.*
Kemball, C. See *Cortes Arroyo, Antonio* and
— See *Dowie, R. S., Whan, D. A.* and
— See *Ross, J. R. H., Roberts, M. W.* and
Kemp, T. J. See *Greatorex, D.* and
— See *Greatorex, D., Hill, R. J., Kemp, T. J.* and *Stone, T. J.*
Kestin, J., Ro, S. T. and **Wakeham, W. A.** 2316
Khoo, K. H. 554
Khopina, V. V. See *Eltekov, Yu. A., Khopina, V. V.* and *Kiselev, A. V.*
Kibblewhite, J. F. J. See *Tench, A. J., Lawson, T.* and
King, D. A., Madey, T. E. and **Yates, Jr., J. T.** 1347
King, David A. See *Goymour, Clarence G.* and
Kiselev, A. V., Lygin, V. I. and **Stародubceva, R. V.** 1793
— See *Eltekov, Yu. A., Khopina, V. V.* and
Kitchener, J. A. See *Blake, T. D.* and
Klinowski, J. See *Barrer, R. M.* and
Knapp, A. G. and **Stiddard, M. H. B.** . 2139
Kozlowska, H. A. See *Conway, B. E., MacDougall, B.* and
Kudish, A. I., Wolf, D. and **Steckel, F.** . 2041
Kuhn, A. T. See *Byrne, M.* and
Kunz, C. O. and **Wright, A. N.** . . 140
Kureishi, A. W. and **Wyatt, P. A. H.** . 676

Laidler, K. J. See *Hijazi, N. H.* and
Lamb, J. D. See *Goates, J. R., Ott, J. B., Reeder, J.* and
Land, E. J. See *Hulme, B. E., Land, E. J.* and *Phillips, G. O.*
Langford, R. B. and **Oldershaw, G. A.** . 1550
Lawson, T. See *Tench, A. J., Lawson, T.* and *Kibblewhite, J. F. J.*
Ledger, M. B. and **Porter, G.** . . . 539
Leitaer, D. See *Vander Donckt, E.* and
Lenzi, M. See *D'Amario, P., Di Stefano, G., Lenzi, M.* and *Mele, A.*
Lewis, F. A. See *Baranowski, B., Lewis, F. A., Majchrzak, S.* and *Wisniewski, R.*
Liddy, J. P. See *Howe, R. F., Liddy, J. P.* and *Metcalfe, A.*
Lockhart, N. C. See *Hood, G. M., Lockhart, N. C.* and *Sherwood, J. N.*
Lohmann, J. 814
Longthorn, D. See *Baldwin, R. R., Fuller, A. R., Longthorn, D.* and *Walker, R. W.*
Loughlin, K. F. See *Derrah, R. I., Loughlin, K. F.* and *Ruthven, D. M.*
— See *Ruthven, D. M.* and

PAGE

Lowe, B. M. and **Rendall, H. M.** . . 2191
Lown, D. A. and **Thirsk, H. R.** . . 1982
Lucassen, J. and **Barnes, G. T.** . . 2129
Lukac, S., Teply, J. and **Vacek, K.** . 1377
Luxton, A. R. See *Barson, C. A., Luxton, A. R.* and *Robb, J. C.*
Lygin, V. I. See *Kiselev, A. V., Lygin, V. I.* and *Starodubceva, R. V.*

McCabe, J. F. See *Hay, J. N., McCabe, J. F.* and *Robb, J. C.*
MacCallum, J. R. and **Schoff, C. K.** . 499
McCarthy, F. See *Burke, L. D., McCarthy, F.* and *O'Meara, T. O.*
McCool, M. A., Collings, A. F. and **Woolf, L. A.** 1489
— and **Woolf, L. A.** 1971
MacDougall, B. See *Conway, B. E., MacDougall, B.* and *Kozlowska, H. A.*
McGhie, A. R. and **Sherwood, J. N.** . 533
McLaughlin, E. See *Kandiyoti, R., McLaughlin, E.* and *Pittman, J. F. T.*
Mach, K. See *Ayscough, P. B.* and
Mackie, J. C. See *Cathro, W. S.* and
Madey, T. E. See *King, D. A., Madey, T. E.* and *Yates, Jr., J. T.*
Mahl, B. S. See *Nigam, R. K.* and
Majchrzak, S. See *Baranowski, B., Lewis, F. A., Majchrzak, S.* and *Wisniewski, R.*
Mancini, C. See *Ascoli, F., Branca, M., Mancini, C.* and *Pispisa, B.*
Marta, F. See *Berces, T., Marta, F.* and *Szilagyi, I.*
Martin, D. R. See *Dollimore, D., Heal, G. R.* and
Martin, S. R. See *Hague, D. N., Martin, S. R.* and *Zetter, M. S.*
Martini, G. See *Burlamacchi, L., Martini,* and *Ferroni, E.*
Maurel, P. See *Davies, Mansel, Maurel, P.* and *Price, A. H.*
Mele, A. See *D'Amario, P., Di Stefano, G., Lenzi, M.* and
Melville, J. B. and **Willis, E.** . . 450
Metcalfe, A. See *Howe, R. F.* and
— See *Howe, R. F., Liddy, J. P.* and
Mills, K. J. and **Nosworthy Peto, J. M.** 1626
Mohri, M. See *Takaishi, T.* and
Moore, P. 1890
Morlotti, R. See *Pizzini, S.* and
Morrow, B. A. and **Devi, A.** 403
Mukhopadhyay, P. See *Parkinson, C., Mukhopadhyay, P.* and *Gray, P.*
Murphy, W. J., Roberts, M. W. and **Ross, J. R. H.** 1190
Mussini, T., Galli, R. and **Dubini-Paglia, E.** 1322

Naito, S., Ichikawa, M. and **Tamaru, K.** . 1451
Nakamura, Y. See *Yamamoto, M., Nakamura, Y.* and *Shimoji, M.*
Nakayama, M. See *Hirohara, H., Nakayama, M.* and *Ise, N.*
— See *Hirohara, H., Nakayama, M., Kawabata, R.* and *Ise, N.*
Nauta, H. and **Van Huis, C.** 647
Nevell, T. G. See *Cullis, C. F., Nevell, T. G.* and *Trimm, D. L.*
Nicholas, J. E. See *Fink, R. D.* and
Nigam, R. K. and **Mahl, B. S.** . . 1508
North, A. M. and **Soutar, I.** 1101
Northey, H. L. See *Roberts, N. K.* and
Nosworthy Peto, J. M. See *Mills, K. J.* and

O'Donnell, D. See *Caldin, E. F., Crooks, J. E., O'Donnell, D., Smith, D.* and *Toner, S.*
Oldershaw, G. A. and **Porter, D. A.** . 709
— **Porter, D. A.** and **Smith, A.** . . 2218
— See *Langford, R. B.* and
Olsen, K. J. See *Ayscough, P. B.* and
O'Meara, T. O. See *Burke, L. D.* and
— See *Burke, L. D., McCarthy, F.* and
O'Neill, E. P. See *Gray, P.* and
Onishi, T. See *Iwasawa, Y., Soma, M., Onishi, T.* and *Tamaru, K.*
Oswal, S. L. See *Deshpande, D. D.* and
Ott, J. B. See *Goates, J. R., Ott, J. B., Reeder, J.* and *Lamb, J. D.*
Ottenwill, R. H. and **Vincent, B.** . . 1533
Oversby, P. See *Ayscough, P. B.* and
Owen, G. P., Thomas, J. M. and **Williams, J. O.** 2356

Pacey, P. D. and **Purnell, J. H.** . . 1462
Paligoric, I. and **Gal, I. J.** 1093
Paniccia, F. and **Zambonin, P. G.** . . 2083
Parfitt, G. D., Ramsbotham, J. and **Rochester, C. H.** 17
— See *Jackson, P.* and
Parkes, David A. . . 613, 627, 2103, 2121
Parkinson, C. and **Gray, P.** 1065
— **Mukhopadhyay, P.** and **Gray, P.** . 1077
Parsons, B. J. See *Jayson, G. G., Parsons, B. J.* and *Swallow, A. J.*
Parsons, G. H. and **Rochester, C. H.** . 523
Paterson, R. See *Dunsmore, H. S., Jalota, S. K.* and
— See *Ferguson, H., Gardner, C. R.* and
— See *Gardner, C. R.* and
Paul, Ram Chand, Singla, Jai Parkash and **Gill, Dip Singh** 1894
Penkett, S. A. See *Cox, R. A.* and
Phillips, David. See *Hackett, Peter A.* and
Phillips, G. O. See *Blackburn, R., Cox, D. L.* and
— See *Hulme, B. E., Land, E. J.* and
Pichat, P. See *Ballivet, D., Barthomeuf, D.* and
Piercy, J. See *Jones, M. N.* and
Pilcher, G. See *Pittam, D. A.* and
Pispisa, B. See *Ascoli, F., Branca, M., Mancini, C.* and
Pittam, D. A. and **Pilcher, G.** . . 2224
Pittman, J. F. T. See *Kandiyoti, R., McLaughlin, E.* and
Pizzini, S. and **Morlotti, R.** 1601
Plunkett, T. J. and **Clarke, J. K. A.** . 600
Porter, D. A. See *Oldershaw, G. A.* and
— See *Oldershaw, G. A., Porter, D. A.* and *Smith, A.*
Porter, G. See *Ledger, M. B.* and
Powell, A. V. See *Wright, E. H. M.* and

PAGE

Price, A. H. See *Davies, Mansel, Maurel, P.* and
Priest, T. W. 661
Pritchard, J. See *Alexander, C. S.* and
Pryde, J. A. See *Griffiths, R., Pryde, J. A.* and *Righini-Brand, A.*
Purnell, J. H. See *Pacey, P. D.* and

Quick, L. M. and **Whittle, E.** . . . 878
Quinn, John A. See *Anderson, John L.* and

Ramsbotham, J. See *Parfitt, G. D., Ramsbotham, J.* and *Rochester, C. H.*
Reed, C. R. V. See *Burns, W. G.* and
Reeder, J. See *Goates, J. R., Ott, J. B., Reeder, J.* and *Lamb, J. D.*
Reid, G. P. See *Roon, Ruby, Reid, G. P.* and *Tait, K. B.*
Rendall, H. M. See *Lowe, B. M.* and
Richardson, P. C., Rudham, R., Tullett, A. D. and **Wagstaff, K. P.** . . 2203
Righini-Brand, A. See *Griffiths, R., Pryde, J. A.* and
Ritchie, I. M. See *Hunt, G. L.* and
Ro, S. T. See *Kestin, J., Ro, S. T.* and *Wakeham, W. A.*
Robb, I. D. See *Fox, K. K., Robb, I. D.* and *Smith, R.*
Robb, J. C. See *Barson, C. A., Luxton, A. R.* and
— See *Hay, J. N., McCabe, J. F.* and
Roberts, M. W. and **Ross, J. R. H.** . 221
— See *Murphy, W. J., Roberts, M. W.* and *Ross, J. R. H.*
— See *Ross, J. R. H., Roberts, M. W.* and *Kemball, C.*
Roberts, N. K. and **Northey, H. L.** . 1528
Robinson, R. A. See *Duer, Wayne C., Robinson, R. A.* and *Bates, Roger G.*
Rochester, C. H. See *Parfitt, G. D., Ramsbotham, J.* and
— See *Parsons, G. H.* and
Rodgers, M. A. J. 1278
Ross, J. R. H., Roberts, M. W. and **Kemball, C.** 914
— See *Murphy, W. J., Roberts, M. W.* and
— See *Roberts, M. W.* and
Roy, R. N., Vernon, W. and **Bothwell, A. L. M.** 2047
Rudham, R. See *Richardson, P. C., Rudham, R., Tullett, A. D.* and *Wagstaff, K. P.*
Rumney, T. G. See *Earls, D. W., Jones, J. R.* and
Ruthven, D. M. and **Derrah, R. I.** . . 2332
— and **Loughlin, K. F.** 696
— See *Derrah, R. I., Loughlin, K. F.* and

Saito, Shuji. See *Hirabayashi, Kazuo, Saito, Shuji* and *Yasumori, Iwao*
Saleh, J. M. 1520
— See *Dadiza, Y. M.* and
Sayer, C. F. See *Davis, K. M. C.* and
Scheinin, N. See *Silber, H. B., Scheinin, N., Atkinson, G.* and *Grescek, J. J.*
Schoff, C. K. See *MacCallum, J. R.* and
Schwarzmann, E. See *Ashcroft, S. J.* and
Semmens, M. J. See *Gregory, J.* and

PAGE

Sheridan, Margaret H. See *Bruce, Linda A.* and
Sherwood, J. N. See *Burns, G.* and
— See *Chadwick, A. V.* and
— See *Hood, G. M., Lockhart, N. C.* and
— See *McGhie, A. R.* and
Shimoji, M. See *Yamamoto, M., Nakamura, Y.* and
Siddiqi, I. W. See *Jagtiani, I. A., Siddiqi, I. W.* and *Tyrrell, H. J. V.*
Sierra, Jose, Teixido M., Emilio and **Wyatt, P. A. H.** 290
Silber, H. B., Scheinin, N., Atkinson, G. and **Grecsek, J. J.** 1200
Sime, S. J. See *Johnson, K. E., Sime, S. J.* and *Dudley, J.*
Singla, Jai Parkash. See *Paul, Ram Chand, Singla, Jai Parkash* and *Gill Dip Singh.*
Skerrett, R. J. 1328
Skinner, H. A. See *Connor, J. A., Skinner, H. A.* and *Virmani, Y.*
— See *Tipping, E. W.* and
Smedley, S. I. See *Cleaver, B., Smedley, S. I.* and *Spencer, P. N.*
Smiles, D. E. See *Elrick, D. E., Smiles, D. E.* and *Wooding, R. A.*
Smith, A. See *Oldershaw, G. A., Porter, D. A.* and
Smith, D. See *Caldin, E. F., Crooks, J. E., O'Donnell, D., Smith, D.* and *Toner, S.*
Smith, R. See *Fox, K. K., Robb, I. D.* and
Sobczyk, L. and **Danel, J.** 1544
Soma, M. See *Iwasawa, Y., Soma, M., Onishi, T.* and *Tamaru, K.*
Soutar, I. See *North, A. M.* and
Spencer, P. N. See *Cleaver, B., Smedley, S. I.* and
Srivastava, R. D. See *Farber, Milton, Srivastava, R. D.* and *Uy, O. M.*
Starodubceva, R. V. See *Kiselev, A. V., Lygin, V. I.* and
Staveley, L. A. K. See *Cook, R. O., Davies, A.* and
Steckel, F. See *Kudish, A. I., Wolf, D.* and
Stiddard, M. H. B. See *Knapp, A. G.* and
Stone, F. S. See *Egerton, T. A., Hagan, A., Stone, F. S.* and *Vickerman, J. C.*
Stone, T. J. See *Greatorex, D., Hill, R. J., Kemp, T. J.* and
Stonehill, H. I. See *Clark, K. P.* and
Subhani, M. S. See *Buxton, G. V.* and
Sutton, H. C. and **Downes, M. T.** . . 1498
Swallow, A. J. See *Jayson, G. G., Parsons, B. J.* and
Symons, M. C. R. 216
Szilagyi, I. See *Berces, T., Marta, F.* and

Tait, K. B. See *Foon, Ruby,* and
— See *Foon, Ruby, Reid, G. P.* and
Takaishi, T. 801
— and **Mohri, M.** 1921
Tamaru, K. See *Iwasawa, Y., Soma, M., Onishi, T.* and
— See *Naito, S., Ichikawa, M.* and
Tedder, J. M., Walton, J. C. and **Winton, K. D. R.** 160, 1866

PAGE

Teixido, M., Emilio. See *Sierra, Jose, Teixido, M., Emilio* and *Wyatt, P. A. H.*
Telford, N. R. See *Hayhurst, A. N.* and
Tench, A. J. 197, 1181
— and **Giles, J.** 193
— **Lawson, T.** and **Kibblewhite, J. F. J.** . 1169
Teng, L. and **Jones, W. E.** 1267
Tennakoon, D. T. B. See *Williams, J. O., Tennakoon, D. T. B., Thomas, J. M.* and *Jacobs, P. W. M.*
Teply, J. See *Lukac, S., Teply, J.* and *Vacek, K.*
Tham, M. K. and **Gubbins, K. E.** . . . 1339
Thirsk, H. R. See *Dobson, J. V., Dagless, M. N.* and
— See *Lown, D. A.* and
Thomas, J. H. See *Bedford, G.* and
Thomas, J. M. See *Owen, G. P., Thomas, J. M.* and *Williams, J. O.*
— See *Williams, J. O., Tennakoon, D. T. B., Thomas, J. M.* and *Jacobs, P. W. M.*
Tiddy, G. J. T. . . . 369, 608, 653, 670
Tilsley, G. M. See *Cadman, P., Tilsley, G. M.* and *Trotman-Dickenson, A. F.*
Tipping, E. W. and **Skinner, H. A.** . 1764
Toner, S. See *Caldin, E. F., Crooks, J. E., O'Donnell, D., Smith, D.* and
Trasatti, S. 229
Trimm, D. L. See *Cullis, C. F., Nevell, T. G.* and
Triolo, R. See *Goffredi, M.* and
Trotman-Dickenson A. F. See *Cadman, P., Tilsley, G. M.* and
— See *Cadman, P., White, A. J.* and
Tsaoussoglou, P. E. See *Buckle, E. R.* and
Tullett, A. D. See *Richardson, P. C., Rudham, R., Tullett, A. D.* and *Wagstaff, K. P.*
Tyler, B. J. See *Graham, R. F.* and
Tyrrell, H. J. V. See *Jagtiani, I. A., Siddiqi, I. W.* and

Uy, O. M. See *Farber, Milton, Strivastava, R. D.* and

Vacek, K. See *Lukac, S., Teply, J.* and
Vander Donckt, E. and **Leitaer, D.** . . 112
Van Der Linde, H. J. See *Ackerman, L. G. J., Basson, R. A.* and
Van Huis, C. See *Nauta, H.* and
Vernon, W. See *Roy, R. N., Vernon, W.* and *Bothwell, A. L. M.*
Vickerman, J. C. See *Egerton, T. A., Hagan, A., Stone, F. S.* and
Vinall, I. C. See *Frey, H. M., Hopkins, R. G.* and
Vincent, B. See *Ottewill, R. H.* and
Vincent, Vera M. See *Hurditch, R. J., Vincent, Vera M.* and *Wright, J. D.*
Virmani, Y. See *Connor, J. A., Skinner, H. A.* and
Voice, P. J. See *Feakins, D.* and

PAGE

Wagstaff, K. P. See *Richardson, P. C., Rudham, R., Tullett, A. D.* and
Wakeham, W. A. See *Kestin, J., Ro, S. T.* and
Walker, R. W. See *Baldwin, R. R., Fuller, A. R., Longthorn, D.* and
Walton, J. C. 1559
— See *Tedder, J. M., Walton, J. C.* and *Winton, K. D. R.*
Wan, J. K. S. See *Wong, S. K., Fabes, L., Green, W. J.* and
Watkins, A. R. 28
Wells, C. F. 993
— and **Whatley, D.** 434
Whan, D. A. See *Dowie, R. A., Whan, D. A.* and *Kemball, C.*
— See *Howe, R. F., Davidson, D. E.* and
Whatley, D. See *Wells, C. F.* and
White, A. J. See *Cadman, P., White, A. J.* and *Trotman-Dickenson, A. F.*
Whittle, E. See *Bassett, J. E.* and
— See *Chamberlain, G. A.* and
— See *Ferguson, K. C.* and
— See *Quick, L. M.* and
Whytock, D. A., Clarke, J. D. and **Gray, P.** 689
Williams, J. O., Tennakoon, D. T. B., Thomas, J. M. and **Jacobs, P. W. M.** 1987
— See *Owen, G. P., Thomas, J. M.* and
Willis, E. See *Melville, J. B.* and
Winkler, C. A. See *Jacob, A.* and
Winton, K. D. R. See *Tedder, J. M., Walton, J. C.* and
Wisniewski, R. See *Baranowski, B., Lewis, F. A., Majchrzak, S.* and
Wolf, D. See *Kudish, A. I., Wolf, D.* and *Steckel, F.*
Wong, S. K., Fabes, L., Green, W. J. and Wan, J. K. S. 2211
Wooding, R. A. See *Elrick, D. E., Smiles, D. E.* and *Wooding, R. A.*
Woodward, T. W. See *Ahmad, M., Huyton, D. W.* and
Woolf, L. A. See *McCool, M. A.* and
— See *McCool, M. A., Collings, A. F.* and
Wright, A. N. See *Kunz, C. O.* and
Wright, E. H. M. and **Powell, A. V.** . 1908
Wright, J. D. See *Hurditch, R. J., Vincent, Vera, M.* and
Wyatt, P. A. H. See *Hussain, S. K.* and
— See *Ireland, J. F.* and
— See *Kureishi, A. W.* and
— See *Sierra, Jose, Teixido M. Emilio* and

Yamamoto, M., Nakamura, Y. and **Shimoji, M.** 135
Yasumori, Iwao See *Hirabayashi, Kazuo, Saito, Shuji* and
Yates, Jr., J. T. See *King, D. A., Madey, T. E.* and

Zamboni, R. See *Indelli, A.* and
Zambonin, P. G. See *Paniccia, F.* and
Zetter, M. S. See *Hague, D. N., Martin, S. R.* and

INDEX TO REVIEWS—VOLUME 68, 1972

PAGE

Acidity Functions. C. H. Rochester 182
Actions Chimiques et Biologiques des Radiations. Vol. 14. Edited by M. Haissinsky . . 381
Adsorption of Organic Compounds on Electrodes. B. B. Damaskin, O. A. Petrii and V. V. Batrakov 1152
Advances in Chemical Physics. Vol. 17. Edited by I. Prigogine and S. A. Rice . . 185
Advances in Chemical Physics. Vol. 18. Edited by I. Prigogine and S. A. Rice . . 189
Advances in Physical Organic Chemistry. Vol. 8. Edited by V. Gold 191
Applied Spectroscopy Reviews. Vol. 3. Edited by E. G. Brame 186
Aquatic Chemistry. An Introduction Emphasizing Chemical Equilibria in Natural Waters. Werner Stumm and James J. Morgan 798
Atomic Collision Phenomena in Solids. Edited by D. W. Palmer, M. W. Thompson and P. D. Townsend 384
Band Theory of Metals. The Elements. S. L. Altman 187
Classical Dynamics of Particles and Systems (2nd ed.). J. B. Marion 191
Compilation of Reported ^{19}F NMR Chemical Shifts. C. H. Dungan and J. R. Van Wazer . 190
Creation and Detection of the Excited State. Vol. 1. Edited by Angelo A. Lamola . . 799
Crystals and X-rays 13. H. S. Lipson 382
Diffusion Processes. Vol. 1 and 2: Proceedings of The Thomas Graham Memorial Symposium. Edited by J. N. Sherwood, A. V. Chadwick, W. M. Muir and F. L. Swinton 1151
Electrochemical Reactions in Non-aqueous Systems. Charles K. Mann and Karen K. Barnes 797
Elektronenmikroskopische Methodik. G. Schimmel 384
Formulations of Classical and Quantum Dynamical Theory. G. Rosen 183
Handbook of Atomic Elements. R. A. Williams 186
Handbook of Metal Ligand Heats and Related Thermodynamic Quantities. Jakes J. Christensen and Reed M. Izatt 185
Introduction to the Kinetics of Chemical Chain Reactions. F. G. R. Grimblett . . . 381
Introduction to Polymer Science (No. 9. The Wykeham Science Series). L. R. G. Treloar 185
Introductory Group Theory for Chemists. G. Davidson. 991
Ion-Molecule Reactions. E. W. McDaniel, V. Cermaj, A. Dalgarno, E. E. Ferguson and L. Friedman 188
Magnetism and Metallurgy. Vol. 1 and 2. Edited by A. Berkowitz and E. Kneller . . 186
Mathematical Methods for Physicists. G. Arfken 182
Modern Aspects of Electrochemistry, No. 6. Edited by J. O'M. Bockris and B. E. Conway . 1151
Modern Methods of Surface Analysis. (Proceedings of the Symposium on Modern Methods of Surface Analysis, Bell Telephone Labs. Murray Hill, N.J., U.S.A.). Edited by P. R. Mark and J. D. Levine 798
Molecular Interactions and Electronic Spectra. Noboru Metaga and Tanekazu Kubota . 192
Physical Acoustics. Vol. VII. Edited by W. P. Mason and R. N. Thurston 381
Polyelectrolytes. Fumio Oosawa 2013
Preparation and Properties of Solid State Materials. Vol. 1. Aspects of Crystal Growth. Edited by R. A. Lefever 1376
Principles of Activation Analysis. P. Kruger 991
Proceedings of the 3rd Symposium on Coordination Chemistry. Debrecan, Hungary, 1970 . 382
Progress in Polymer Science. Vol. 2. Edited by A. D. Jenkins 576
Quantum Mechanics. Vol. 1. Fundamentals. K. Gottfried. 188
Reverse Osmosis. S. Sourirajan 187
Selection of Oxidants in Synthesis. L. J. Chinn 798
Semiconductors and Semimetals. Vol. 5. Infrared Detectors. Edited by R. K. Willardson and A. C. Beer 192
Spin Temperature and Nuclear Magnetic Resonance in Solids. M. Goldman 184
Techniques of Chemistry. Vol. 1. Edited by A. Weissberger and B. W. Rossiter . . 799
Techniques of Chemistry. Vol. 2. Edited by A. Weissberger and B. W. Rossiter . . 1375
The Chemistry of Inorganic Ring Systems. I. Haiduc 797
The Chemistry of the Cyano Group. Edited by Zvi Rappoport 576
The Chemistry of the Nitro and Nitroso Groups. Part 2. Edited by Henry Feuer . . 576
The Photographic Image. Formation and Structure. Edited by S. Kikuchi 189
The Royal Institution Library of Science, Physical Sciences. Vol. 1-10. Edited by Sir William Lawrence Bragg and Prof. George Porter 383

PAGE

Thermochemistry of Transition Metal Complexes. S. J. Ashcroft and C. T. Mortimer . . 182
Three Approaches to Electron Correlation in Atoms. Oktay Sinanoglu and Keith A. Brueckner 183
Topics in Organic Mass Spectrometry. Edited by A. L. Burlingame. (Vol. 8 of Advances in Analytical Chemistry and Instrumentation. Edited by C. N. Reilley and F. W. McLafferty) 190
Unimolecular Reactions. P. J. Robinson and K. A. Holbrook 2013
Valence Theory. J. N. Murrell, S. F. A. Kettle and J. M. Tedder 190

Journal of the Chemical Society, Faraday Transactions II

SUBJECT INDEX—VOLUME 68, 1972

PAGE

II, 1 Kinetic Spectroscopy (see also II, 5)

Absorption Spectrum and Decay Kinetics of Triplet Pentacene in Solution, Studied by Flash Photolysis. (Hellner, Lindqvist & Roberge) 1928

Atomic Resonance Fluorescence Spectrometry for Rate Constants of Rapid Bimolecular Reactions. Part 1: Reactions O+NO_2, Cl+ClNO, Br+ClNO. (Clyne & Cruse) . 1281

Atomic Resonance Fluorescence Spectrometry for the Rate Constants of Rapid Bimolecular Reactions. Part 2: Reactions Cl+BrCl, Cl+Br_2, Cl+ICl, Br+IBr, Br+ICl. (Clyne & Cruse) 1377

Collisional Quenching of Electronically Excited Lead Atoms, Pb(6^1D_2), by Time-resolved Atomic Absorption Spectroscopy using Attenuation of Resonance Radiation. (Husain & Littler) 2110

Determination of Collision Rate Constants of Fluorocarbon Ions by Ion Cyclotron Resonance. (Kevan & Futrell) 1742

Electronically Excited Iodine Atoms I($5p^5\ ^2P)_{\frac{1}{2}}$. A Kinetic Study of Collisional Quenching by Time-resolved Atomic Absorption, I($5p^4 6s(^2P_{\frac{3}{2}}) \leftarrow 5p^5(^2P^o_{\frac{1}{2}})$) at $\lambda = 206.23$ nm. (Deakin & Husain) 41

Electronically Excited Iodine Atoms, I($5^2P_{\frac{1}{2}}$). Diffusion in Noble Gases, the Mean Radiative Lifetime and Atomic Recombination. (Abrahamson, Andrews, Husain & Wiesenfeld) 48

Energy Partition in the γ-Radiolysis of Gaseous H_2S+N_2O Mixtures. (Huyton & Woodward) 144

Excitation of Species in Active Nitrogen. Part 1: Mercury Hg(6^6P_1). (Thrush & Wild) . 2023

Flash Spectroscopy with Mercury Resonance Radiation. Part 3: An Experimental Method with a Multielectrode Flash-Lamp. Mercury Hydride Yields. (Callear & McGurk). 289

Flash Spectroscopy with Mercury Resonance Radiation. Part 4: Measurement of Mercury Hydride Yields with a Nitric Oxide Titration. (Callear & Wood) 302

Formation of the $B^3\Pi(0^+)$ States of BrF and IF by Atom Recombination in the presence of Singlet ($^1\Delta_g$, $^1\Sigma_g^+$) Oxygen. (Clyne, Coxon & Townsend) 2134

Kinetic Evidence for the Role of Triplet States in a Microwave Discharge of Ammonia. (Barker) 421

Kinetics of Formation and Quenching of $5s\ ^4P_{\frac{3}{2}}, _{\frac{1}{2}}$ Br Excited Atoms using Fluorescence Spectrometry. (Bemand & Clyne) 1758

Lifetime of Singlet Oxygen in Liquid Solution. (Adams & Wilkinson) 586

Photophysics of Substituted Benzenes. Absolute Rate Constants for Singlet Radiative and Non-radiative Decay in the Vapour Phase. (Breuer, Hackett, Phillips & Rockley) . 1995

Quantum Yields for the Collisionally Induced Dissociation of Excited $I_2B^3\Pi_{0_u^+}$ to I($5^2P_{\frac{1}{2}}$)+I($5^2P_{\frac{3}{2}}$); Non-equilibrium Effects in the Combination of Atoms. (Broadbent & Callear) 1367

Quenching of Excited $^1B_{2u}$ and $^3B_{2u}$ Benzene Vapour by Halogenated Compounds. (Das Gupta & Phillips) 2003

Quenching of Infra-red Chemiluminescence. Part 2: Rates of Energy Transfer from HCl($v \leqslant 3$) to HBr, HCl and CO_2. (Ridley & Smith) 1231

Quenching of Triplet States by Schiff Base Nickel(II) Complexes. (Adamczyk & Wilkinson) 2031

Quenching Rates for CO_2^+ Emission Excited by 58.4 nm Irradiation of CO_2. (Winkler, Tellinghuisen & Phillips) 121

Quenching Rates for N_2^+, N_2O^+, and CO_2^+ Emission Bands Excited by 58.4 nm Irradiation of N_2, N_2O, and CO_2. (Tellinghuisen, Winkler, Freeman, McEwan & Phillips) . . 833

Rate Measurements of Reactions of OH by Resonance Absorption. Part 1: Reactions of OH with NO_2 and NO. (Morley & Smith) 1016

Reaction Probabilities of Hot Hydrogen Atoms with CO_2 and N_2O. (Tomalesky & Sturm) 1241

Sensitized Photodecomposition of Phenyl Azide and α-Naphthyl Azide. (Leyshon & Reiser) 1918

Third-order Recombination Reactions of NF_2 Radicals. (Clyne & Connor) . . . 1220

II, 2 Photophysics (fluorescence, phosphorence, luminescence, dispersion, dichoroism, etc.)

Electron Attachment and Detachment in Nitric Oxide. (Parkes & Sugden) 600

Excitation of Iodine by Singlet Molecular Oxygen. Part 1: Mechanism of the I_2 Chemiluminescence. (Derwent & Thrush) 720

Infra-red Chemiluminescence from Vibrationally Excited CO. Part 2: Product Distribution from the Reaction O+CS→CO+S. (Hancock, Ridley & Smith) 2117

PAGE

Infra-red Chemiluminescence from Vibrationally Excited CO. Part 3: Reaction of O Atoms with CSe_2. (Morley, Ridley & Smith) . . . 2127
Photochemical Characteristics of Cyanine Dyes. Part 1: 3,3′-Diethyloxadicarbocyanine Iodide and 3,3′-Diethylthiadicarbocyanine Iodide. (Dempster, Morrow, Rankin & Thompson) . . . 1479
Primary Photophysical Processes in Benzene. Part 1: Singlet State Studies. (Cundall & Robinson) . . . 1133
Primary Photophysical Processes in Benzene. Part 2: Monomer Studies. (Cundall & Robinson) . . . 1145
Primary Photophysical Processes in Benzene. Part 3: Effect of Concentration on Triplet Yields. (Cundall & Robinson) . . . 1691
Primary Photophysical Processes in Phenylcyclohexane. (Cundall & Robinson) . . . 1323
Reflectance Phase-shift Dispersion Relation. (Cliford, Duckels & Walker) . . . 407
Temperature and Density Dependence of the Refractive Index of Pure Liquids. (Reisler, Eisenberg & Minton) . . . 1001
Temperature and Solvent Effects on the Fluorescence of some Simple Aromatic Molecules. (Cundall & Pereira) . . . 1152
Temperature Dependence of Collisionally-induced Spin Orbit Relaxation of Electronically Excited Iodine Atoms, $I(5p^5\ ^2P_{\frac{1}{2}})$. (Deakin & Husain) . . . 1603

Quantum and General Theory (including valence theory, *ab initio* calculations, energy transfer, computer simulation etc.; see also II, 5)

Ab Initio Calculations in Extended Bases, and Localized Orbital Calculations of the Bonding in SO_2 and PF_3. (Guest, Hillier & Saunders) . . . 114
Ab Initio Calculations on the Silicate Ion, Orthosilicic Acid and their $L_{2,3}$ X-ray Spectra. (Collins, Cruickshank & Breeze) . . . 1189
Ab Initio Localized Orbital Calculations of the Bonding in Phosphines and Phosphine Complexes. (Guest, Hillier & Saunders) . . . 867
Ab Initio Molecular Orbital Calculations of ESCA Chemical Shifts Using the Equivalent Cores Method. (Clark & Adams) . . . 1819
Ab Initio UHF Calculations. Part 7: Possible Evidence for Environmental Effects on the Radicals BH_3, CH_3 and NH_2^+. (Claxton, Godfrey & Smith) . . . 181
Ab Initio UHF Calculations. Part 8: Spin Contamination in the Cyanide Radical. (Claxton, Godfrey & Weiner) . . . 566
Application of the Angular Overlap Model to the Interpretation of the Electronic Spectra of Some Copper(II) and Nickel(II) Acetylacetonate Complexes. (Hitchman) . . . 846
π-Bonding in Cyclic Phosphonitrilic Compounds. (Doggett) . . . 2075
Calculation of Atomic Cartesian Coordinates from the Internal Coordinates Defining a Structure. A Least Squares Refinement Problem. (Gardner & Rogers) . . . 1410
CNDO/BW Calculations of the ^{35}Cl N.Q.R. Frequencies in $-NCl$, $-COCl$ and $-OCOCl$ Molecules. (Cohen & Whitehead) . . . 649
CNDO Calculations on Some Small Radicals Containing Phosphorus. (Kilcast & Thomson) . . . 435
Collision Cross-sections for Electrons in Ethylene and Acetylene. (Duncan & Walker) . . . 1800
Computational Study of the Reaction Between CH_4 and CH_4^+. (Field, Gray & Knewstubb) 852
Computer Simulation of Hot-atom Chemistry. (Malcolme-Lawes & Urch) . . . 967
Correlations of Carbon-13 Chemical Shifts with Electron Density in Substituted Nitrobenzenes. (Jones & Partington) . . . 2087
Effects of Fragment Symmetry and Rotation in Decomposition of Excited Ions. (Knewstubb) . . . 1196
Electronic Conduction and Energy Levels in Polynuclear Aromatic Molecular Crystals. (Boon) . . . 1600
Electronic Structure and Rotational Barrier of Diphosphine. (Absar, Robert & Van Wazer) 799
Electronic Structures of the Chlorine Fluorides ClF and ClF_3. (Breeze & Cruickshank) . 2144
Electron-impact Ionization and Appearance Potentials. (Johnstone & Mellon) . . . 1209
Electrostatic Potentials Outside Ionic Crystals. (Gevirzman & Kozirovski) . . . 1699
Energy Levels for Pseudorotation and their Application to Cyclopentane, Tetrahydrofuran and 1,3-Dioxolan. (Davidson & Warsop) . . . 1875
Experimental and Theoretical Studies of the Molecular Core Binding Energies of Some Six-Membered Ring Nitrogen Heterocycles and their Perchloro- and Perfluoro-Derivatives. (Clark, Chambers, Kilcast & Musgrave) . . . 309
Force Constant Calculations of Methyl Mercuric Chloride and Methyl-d_3 Mercuric Chloride. (Meić & Randić) . . . 444
Gaussian Orbital Calculations of Solids. Crystalline Lithium Hydride. (Erickson & Linnett) . . . 693
Geometric Dependence of some One Electron Properties of Water. (Dixon, Claxton & Smith) . . . 2158
He_2^+: A Study of Hole Localization. (Murrell & Ralston) . . . 1393

PAGE

Heteroatomic Molecules: Calculation of Proton and ^{14}N Hyperfine Splittings. (Zeiss & Whitehead) . . . 526
High Energy Reaction Kinetics using a Hard-sphere Model. (Malcolme-Lawes) . . . 1613
High Energy Reaction Kinetics Using a Hard Sphere Model. Part 2: T+RH. (Malcolme-Lawes) . . . 2051
INDO Theoretical Examination of the Tricyclobutylium Ion Geometry of the trans-2-Vinylcyclopropylcarbinyl Cation. (Pittman, Jr., Dyas, Engelman & Kispert) . . . 345
Ion-Molecule Reactions of the Rare Gases with Hydrogen. Part 1: Diatomics-in-Molecules Potential Energy Surface for ArH_2^+. (Kuntz & Roach) . . . 259
Inversion of the Total Scattering Cross Section Spectrum of the Li+Kr System. (Luoma & Nee) . . . 1595
Magnetic Exchange Interaction in the $Ti_2Cl_9^{3-}$ Anion. (Barraclough & Gregson) . . . 177
Method of Non-paired Spatial Orbitals. Part 3: Anthracene and Phenanthrene. (Hirst & Linington) . . . 1988
Method of Non-paired Spatial Orbitals. Part 4: Density Matrix Method for Calculating Wave Functions with Full Spin Projection. (Hirst & Linington) . . . 2200
Molecular Conformations from Magnetic Anisotropies. (Cheng, Murthy & Ritchie) . . . 1679
Molecular *d*-Orbital Exponents for Phosphonitriles and Sulphonitriles determined by an Exchange Overlap Variation. Part 1. (Clipsham & Whitehead) . . . 55
Molecular *d*-Orbital Exponents for Phosphonitriles and Sulphonitriles determined by an Exchange Overlap Variation. Part 2: Bond Structure of the Phosphonitriles and Sulphonitriles. (Clipsham & Whitehead) . . . 72
Molecular Orbital Calculations on Polypeptides and Proteins. Part 5: Stable Conformations of Oxygen-containing Peptides. (Govil & Saran) . . . 1176
Molecular Orbital Calculations on Transition Metal Complexes. Part 5: Electronic Structure of CrO_4^{2-} and Cr_2O_3. (Clack) . . . 1672
Molecular Orbital Study of the Catalytic Activity of Onium Compounds in Liquid-phase Oxidation. (Ohkubo & Kanaeda) . . . 1164
Molecular Orbital Theory for the Excited States of Transition Metal Complexes. (Armstrong, Fortune, Perkins & Stewart) . . . 1839
On the Schlieren Texture in Nematic and Smectic Liquid Crystals. (Nehring & Saupe) . . . 1
4*s* Orbitals in Phosphorus. (MacLagan) . . . 1117
Quasiclassical Theory of Inner-sphere Electron Transfer Reactions in Polar Media. (Dogonadze, Ulstrup & Kharkats) . . . 744
Rates of Charge Exchange of Ar^+ with Diatomic Molecules. (Hyatt & Knewstubb) . . . 202
Relation of Rehybridization Moments and Bond Moment Theory. (Galabov & Orville-Thomas) . . . 1778
Rotational Isomerism and Barriers to Internal Rotation in Methyl Vinyl Ether and 3-Fluoropropene. (Cadioli & Pincelli) . . . 991
Rotation-independent Conjugation Between a Sulphur(IV)-Nitrogen Double Bond and a Sulphonyl Group. (Mezey & Kucsman) . . . 2060
Semi-empirical Calculations of the Magnetic Properties of Condensed Hydrocarbons. (Lazzeretti & Taddei) . . . 839
Semi-empirical Calculations of the Magnetic Properties of Condensed Hydrocarbons. Part 2. (Lazzeretti & Taddei) . . . 1825
Semi-empirical LCAOMO Theory for Infinite Systems. Part 1: Application to Polyethylene, Polyacetylene and Polyvinylchloride. (McAloon & Perkins) . . . 1121
Semi-empirical LCAOMO Theory for Infinite Systems. Part 2: The Linear Phosphite Polymer. (McAloon & Perkins) . . . 1833
Simple Molecular Orbital Calculations on Tetrahalogenoaluminate Ions. (Canadine & Jones) . . . 1665
Solvent Cage Model for the Effect of Magnetically Anisotropic Molecules on the Nuclear Screening of Simple Solutes. (Homer & Redhead) . . . 793
Some Studies of Benzenoid-Quinonoid Resonance. Part 1: General Theory and Applications to the Structure of the Pyridones and to the Stability of Wheland Intermediates. (Benson & Murrell) . . . 129
Some Studies of Benzenoid-Quinonoid Resonance. Part 2: The Effect of Solvent Polarity on the Structure and Properties of Merocyanine Dyes. (Benson & Murrell) . . . 137
Spin-Lattice Relaxation and Methyl Reorientation in Symmetrical Alkenes and Alkynes and in l-Alkenes and l-Alkynes. (Van Putte) . . . 357
Structure of Bicyclo[2,1,0]pentene, Determined by Electron Diffraction. (Chaing, Kratus, Andreassen & Bauer) . . . 1274
Symmetry of Hydrogen Bonds, Infra-red Continuous Absorption and Proton Transfer. (Lindemann & Zundel) . . . 979
Theoretical Study of the Bonding in P_4 and N_4. (Guest, Hillier & Saunders) . . . 2070

PAGE

II, 4 Relaxation Phenomena (dielectric, magnetic, ultrasonic, etc.)
Dielectric Absorption at Submillimetre Wavelengths due to Collisional Polarization in Polystyrene. (North & Parker) 1094
Dielectric Relaxation in Non-aqueous Solutions. Part 3: Solutions of Tetra(n-butyl)-ammonium Bromide in 1,2-Dichloroethane and Pentan-3-one. (Cavell & Knight) . 765
Dielectric Relaxation in Siloxane Polymers. (Baird & Sengupta) 1795
Dielectric Relaxation in Solutions of two Poly(alkyl isocyanate)s. (Lochhead & North) . 1089
Dielectric Relaxation of Acrylonitrile-Butadiene Copolymers as a Function of Frequency, Temperature and Applied Pressure. (Williams, Watts & Nottin) 16
Dielectric Studies of Non-electrolyte Solutions. Part 1: Electric Permittivity and Non-linear Behaviour of Mixtures of Polar Anisotropic Molecules. (Thiebaut, Rivail & Barriol) 1253
Molecular Motion in Amorphous Polymers. Consideration of the Mechanism for α, β and ($\alpha\beta$) Dielectric Relaxations. (Williams, Cook & Hains). 1045
Nuclear Magnetic Relaxation in Polypropylene. (McBrierty, Douglass & Falcone). . 1051
Nuclear Magnetic Resonance Diffusion and Relaxation Time Study of Acetylcholine. (Jones, Roberts, Anderton & Ahmed) 400
Proton Relaxation in Solid Aniline and some Methyl Derivatives. (Ahmed & Eades) . 2017
Treatment of Data in Step-response Dielectric Relaxation Measurements. (Block, Groves, Lord & Walker). 1890
Ultrasonic Absorption by Aqueous Magnesium and Calcium Acetate Solutions. (Purdie & Barlow) 33
Ultrasonic and Viscoelastic Relaxation in Tri(o-tolyl) Phosphate. (Barlow & Singh) . 1404
Ultrasonic Relaxation in Liquid C_5-C_{10}, C_{12} and C_{14} n-Alkanes. (Cochran, Jones, North & Pethrick) 1719

II, 5 Spectroscopy (see also II, 1)
(a) Microwave, infra-red, Raman
A- and C-type Bands in the Infra-red Spectrum of Pyrrole. (Carlotti, Di Lonardo, Galloni & Trombetti) 1473
Centrifugal Distortion in the Microwave Spectra of cis- and trans-Nitrous Acids. Determination of the Quadratic Potential Functions and Average Structures. (Finnigan, Cox, Brittain & Smith) 548
Far Infra-red Absorption in Nitrous Oxide and Fluoroform and its Molecular Interpretation. (Baise) 1904
Far Infra-red Absorption of Disubstituted Propanes in Rotator, Solid and Liquid Phases. (Haffmans & Larkin) 1729
Far Infra-red Measurements on Solutions of Iodine and Bromine. (Kettle & Price) . 1306
Fluorescence and Raman Spectra of Pure and Doped Anthracene Crystals at 4 K. (Bridge & Vincent) 1522
Infra-red and Raman Spectra of Glasses. Part 1: Theory for the Translational Lattice Vibrations. (Whalley) 662
Infra-red Cryogenic Studies. Part 7: Hydrogen Sulphide in Matrices. (Barnes & Howells) 729
Infra-red Cryogenic Studies. Part 8: Carbon Monoxide in Matrices. (Davies & Hallam) 509
Infra-red Cryogenic Studies. Part 9: Methanethiol and Ethanethiol in Matrices. (Barnes, Hallam & Howells) 737
Infra-red Cryogenic Studies. Part 10: Conformational Isomerism of 1,1,1,3,3,3-Hexafluoropropan-2-ol. (Barnes & Murto) 1642
Infra-Red Dispersion Studies. Part 10: Band Intensities and Atomic Polarizations of Some XCH_2CN Molecules (X = F, Cl, I) and a Reappraisal of Published Intensity Data. (Ramsey, Ladd & Orville-Thomas) 193
Interpretation of the Low Frequency Raman Spectra of Molten Lithium Nitrate and Molten Silver Nitrate. (Clarke & Hartley) 1634
Microwave Spectra and Structures of 1-Cyano- and 1-Iodo-adamantane. (Chadwick, Legon & Millen) 2064
Microwave Spectrum and Structure of Nitromethane. (Cox & Waring). 1060
Molecular Spectra of OCSe. (Bavia, Di Lonardo, Galloni & Trombetti) 615
Raman Spectral Study of Bisulphate Ion Hydration. (Turner) 643
Raman Spectrum of Vanadium Tetrachloride. Intensity Measurements. (Clark, Hunter & Mitchell) 476
Resonance Fluorescence and Raman Spectra of Gaseous Sulphur. (Yee, Barrow & Rogstad) 1808
Spectral Intensities of the Trivalent Lanthanides. Part 2: An Assessment of the Vibronic Contribution. (Peacock) 169
Spectroscopic Detection of the Hydrogen Bond Isotope Effect in KHF_2. (Dawson) . 1448
Vibrational Spectra and Assignment of Iodoacetylene. (Carpenter, Rimmer & Whiffen) . 1914
Vibrational Spectra and Rotational Isomerism in Succinyl Chloride. (Nandy, Mukherjee, Roy & Kastha) 1312

PAGE

Vibration-Translation and Vibration-Rotation Energy Transfer in Polyatomic Molecules. (Lambert) 364
Vibronic Structure in the Circular Dichroism of Transition Metal Complexes. (Harding) 234
(b) **electronic** (visible, ultra-violet etc.)
Absorption and Fluorescence Spectra of Gaseous Se_2. (Yee & Barrow) 1181
Effect of Pressure on the Ultraviolet Absorption Spectra of Iodide in Non-aqueous Solvents. (Blandamer & Burdett) 577
$^2E_g \rightarrow {}^4A_{2g}$ Transition of the Hexa-amminochromium(III) Ion in Cubic Environments. Intensity Mechanism and Jahn-Teller Effect. (Flint & Greenough) 897
Electronic Spectrum of Thiophen and some Deuterated Thiophens. (Di Lonardo, Galloni, Trombetti & Zauli) 2009
Electronic Spectrum of the Manganate Ion. (Disipio, Oleari & Day) 776
Magnetic Perturbation of Singlet-Triplet Transitions. Part 7: Simultaneous Electronic Transitions. (Evans & Tucker) 174
Measurement of Ground State $^2P_{\frac{1}{2}}$ Bromine and Chlorine Atom Concentrations in Discharge-Flow Systems. (Clyne, Cruse & Watson) 153
New Electronic Transitions of Antimony Monochloride. (Briggs & Kemp) 1083
Observations on the Absorption and Fluorescence Spectra of Gaseous Te_2. (Yee & Barrow) 1397
Stereoisomerism and Spectroscopic Properties of α,ω-Diphenylpolyenes. Part 1: Theoretical Study on the Shape of the Long-wavelength u.-v. Band. (Momicchioli, Baraldi & Bruni) 1556
Stereoisomerism and Spectroscopic Properties of α,ω-Diphenylpolyenes. Part 2: Theoretical Study on Conformations, Electronic Transitions, and Band Shape of Butadiene-, Hexatriene-, and Octatetraene-derivatives. (Baraldi, Momicchioli & Bruni) . . 1571
Vacuum Ultraviolet Spectra of Transient Molecules and Radicals. Part 3: HSe and HTe. (Donovan, Little & Konstantatos) 1812
Yield of Triplet State Benzene in the Pulse Radiolysis of Solutions of Some Aromatics. (Baxendale & Fiti) 218

(c) **photo-electron spectroscopy**
Electronic Structure of KrF_2, Studied by Photoelectron Spectroscopy. (Brundle & Jones) 959
Electronic Structure of Metal Complexes Containing π-Cyclopentadienyl and Related Ligands. Part 1: He(I) Photoelectron Spectra of some Closed-shell Metallocenes. (Evans, Green, Jewitt, Orchard & Pygall) 1847
Electronic Structures of the Group IVB Tetramethyls by Helium-(I) Photoelectron Spectroscopy. (Evans, Green, Joachim, Orchard, Turner & Maier) 905
He(I) Photoelectron Spectra of Some π-Arene Complexes. (Evans, Green & Jackson) . 249
Interpretation of High Energy Photoelectron Spectra Satallite Peaks by Semi-empirical Molecular Orbital Calculations. (Aarons, Guest & Hillier) 1866
Photoelectron Spectra of Molecules. Part 5: Polycyclic Aromatic Hydrocarbons. (Dewar & Goodman) 1784
Photoelectron Spectra of PF_2H and Some Substituted Difluorophosphines. (Cradock & Rankin) 940
Photoelectron Spectra of Some Group 4 Pseudohalides and Related Compounds. (Cradock, Ebsworth & Murdoch) 86
Photoelectron Spectra of Some Methyl, Silyl and Germyl Amines, Phosphines and Arsines. (Cradock, Ebsworth, Savage & Whiteford) 934
Photoelectron Spectra of the Methyl, Silyl and Germyl Derivatives of the Group VI Elements (Cradock & Whiteford) 281
Photoelectron Spectroscopic Correlation of the Molecular Orbitals of Methane, Ethane, Propane, Isobutane and Neopentane. (Murrell & Schmidt) 1709
Photoelectron Spectroscopy and the Geometry of the Phosphine and Phosphorous Trifluoride Molecular Ions. (Maier & Turner) 711
Photoelectron Studies of Boron Compounds. Part 3: Complexes of Borane with Lewis Bases. (Lloyd & Lynaugh) 947
Photoelectron Studies of Boron Compounds. Part 4: Experimental and Theoretical Studies of Diboron Tetrachloride and Diboron Tetrafluoride. (Lynaugh, Lloyd, Guest, Hall & Hillier) 2192
Valence Band Structures and Core-Electron Energy Levels in the Monochalcogenides of Gallium. Photoelectron Spectroscopic Study. (Thomas, Adams, Williams & Barber) 755

(d) **electron spin resonance**
Electron Paramagnetic Resonance of Osmium-doped Trichlorotris(diethylphenylphosphine)-rhodium(III). (Hill). 427

PAGE

Electron Spin Resonance and CNDO/2 Study of the Radicals Produced During Fast Electron Irradiation of Substances Containing Nitrogen. Part 1: Formamide, Urea, Biuret and Thiourea. (Helcké & Fantechi) 912
Electron Spin Resonance and CNDO/2 Study of the Radicals Produced During Fast Electron Irradiation of Substances Containing Nitrogen. Part 2: Hydrazine. (Fantechi & Helcké) 924
Electron Spin Resonance Linewidths and Electronic Structure of the Pentacyanocobalt-2,3,5,6-tetrachlorophenyl Nitroxide Radical Ion. (Atherton & Waldram) . . 413
Electron Spin Resonance Studies of Reduction by Solvated Electrons in Liquid Ammonia. Part 5: Aromatic Amides and Thioamides. (Elson, Kemp & Stone) . . . 1452
Electronic Spectrum of Tetrahydrofuran in the 205-185 nm Region. (Davidson, Hog, Warsop & Whiteside) 1652
ENDOR Spectra of Some Semiquinone Radical-Anions. (Atherton & Blackhurst) . . 470
E.S.R. Investigation on Durosemiquinone-Alkali Metal Ion Pairs. (Pasimeni, Brustolon & Corvaja) 223
E.S.R. Study of Aqueous Sodium Dodecyl Sulphate Solutions using Di-t-butyl Nitroxide as a Probe. (Atherton & Strach) 374
g Factor of Alkali Metal-Radical Ion Pairs. (Brustolon, Corvaja & Pasimeni) . . 2150
Molecular Orbital Interpretation of the Ultra-violet Spectra of Nitroguanidine and Related Nitramines. (Stals & Pitt) 1659
Proton Magnetic Resonance Study of Trimethylamine-Trimethylborane. (Ang & Dunell) 1331
Substituted Naphthoquinones. Part 2: E.s.r. Spectra of some Hydroxy- and Alkoxy-1,4-Naphthosemiquinones. (Binks, Bullock & Hopkin) 814
Unstable Intermediates. Part 108: Electron Spin Resonance Study of Radicals Formed by the Irradiation of Polycarbonate and Model Compounds. (Lyons, Symons & Yandell) 495
Unstable Intermediates. Part 109: Electron Spin Resonance Data for Boron-Carbon and Nitrogen-Carbon π-Radicals: a Comparison between π^2- and π^3-Radicals. (Lyons & Symons) 502
Unstable Intermediates. Part 110: Hyperconjugation by Groups Containing Heavy Atoms: Electron Spin Resonance Studies of Carbon Radicals Having β-SnR_3, -Pr_2, -PR_3^+, -AsR_2, -AsR_3^+ and -AsO_3H Groups. (Lyons & Symons) 622
Unstable Intermediates. Part 111: Electron Spin Resonance Studies of γ-Irradiated Frozen Aqueous Solutions of Alkali-metal Azides. (Ginns & Symons) 631
Unstable Intermediates. Part 112: Radiation Damage in Plumbous Acetate: Electron Spin Resonance Spectrum of a $PbMe^{2+}$ Adduct. (Booth, Starkie & Symons) . . . 638
Unstable Intermediates. Part 113: E.s.r. Data for R_2CXR_3 Radicals, when X is from Group IV or V. Evidence Against Significant $d(\pi)$—$p(\pi)$ Bonding. (Lyons, Neilson & Symons) 807
Unstable Intermediates. Part 114: Solid-state Electron Spin Resonance Study of Pentacyanocobalt Phenyl Nitroxide. (Symons & Wilkinson) 1265
Unstable Intermediates. Part 116: Radical Anions of N-Halogenated Amides. (Neilson & Symons) 1582
Unstable Intermediates. Part 117: Electron Spin Resonance Studies of Dimeric (α^*) Radicals of Type R_3X—XR_3 with a Three Electron X—X Bond, when X is Phosphorus or Arsenic. (Lyons & Symons) 1589
Unstable Intermediates. Part 118: Gamma Irradiated Potassium Azide: Electron Spin Resonance Spectra of N_4^- and N_3^{2-} Radical Ions. (Neilson & Symons) 1772
Unstable Intermediates. Part 120: Electron Spin Resonance Study of γ-Irradiated t-Butyl Chloride: Coupling to β-Chlorine Atoms. (Symons) 1897
Unstable Intermediates. Part 121: Electron Spin Resonance Studies of Irradiated Hexamethylphosphoramide: on the Nature of Solvated Electrons. (Rao & Symons) . 2081

(e) **nuclear magnetic resonance, quadrupole neutron resonance**

Determination of Association Constants for Trimethylsulphonium Iodide using Proton Magnetic Resonance Spectroscopy. (Covington, Hassall & Lantzke) 1352
Deuteron Magnetic Resonance Studies. Part 3: Strontium Formate Dihydrate-d_6. (Dillon & Smith) 2183
Dielectric and Nuclear Magnetic Resonance Properties of Ethylene Oxide Hydrate to 2 K. (Garg, Morris & Davidson) 481
^{19}F Nuclear Magnetic Resonance Spectrum of Pentafluorophyridine Partially Oriented in a Nematic Phase. (Emsley, Lindon & Salman) 1343
Heteronuclear Magnetic Triple Resonance. Signs of the B—H and B—P Spin-spin Coupling Constants. (McFarlane, McFarlane & Rycroft) 1300
Inelastic Neutron Scattering Spectrum of p-Terphenyl. (Reynolds & White) 1434
Internal Rotation in 1,1,2,2-Tetrachloropropane. Comparison of Nuclear Magnetic Resonance and Vibrational Spectroscopy. (Heatley, Allen, Hameed & Jones) . . 1547

PAGE

Internal Vibrations and Hindered Rotation of ReH_6^{2-} by Neutron Scattering Spectroscopy. (White & Wright) . . . 1414
Investigation of Haemoglobin Dissociation by Proton Spin-Lattice Relaxation Times. (Eley, Hey & Ward) . . . 460
Magnetic Resonance Studies in Aqueous Systems. Part 1: Solubilization of Spin Probes by Micellar Solution. (Oakes) . . . 1464
Molecular Complexes. Part 7: Some Comments on the Processing of Data obtained from Nuclear Magnetic Resonance Studies. (Homer, Everdell, Jackson & Whitney) . . . 874
^{14}N Chemical Shifts in Linear Triatomic Species. (Chew, Derbyshire & Logan) . . . 594
Neutron Scattering Spectra of Hydridocarbonyls in the 900-200 cm^{-1} Energy Region. (White & Wright) . . . 1423
Nuclear Magnetic Double and Triple Resonance Studies on Pentafluoropyridine. (Barboiu, Emsley & Lindon) . . . 241
Nuclear Magnetic Resonance in Toluene, Toluene-αd_3 and Toluene-d_5. (Ahmed & Eades) 1337
N.M.R. Investigation of Molecular Motions in Solid Xylene. (Ahmed, Eades, Jones & Llewellyn) . . . 1316
N.M.R. Investigation of Molecular Motions in Trimethyltin Fluoride. (Ulrich & Dunell) 680
N.M.R. Study of the Solvation Sphere of the Mg^{2+} ion in Acetone+Water Solutions of Magnesium Perchlorate. (Green & Sheppard) . . . 821
Proton Magnetic Relaxation in Toluene and Some Derivatives. (Ahmed & Eades) . . . 1623
Proton Motions in Hydrogen-Bonded Ferroelectric and Antiferroelectric Solids. Part 1: Energy-loss Neutron Incoherent-scattering Spectra of KH_2PO_4 and $Ag_2H_3IO_6$ for $T<T_c$. (Temme & Waddington) . . . 350
Solvation Spectra. Part 42: Influence of Quaternary Ammonium and Carboxylate Ions on the Proton Magnetic Resonance Spectrum of Water. (Davies, Ormondroyd & Symons) 686

(f) **charge transfer, solvation spectra**
Charge-transfer-to-solvent Spectrum of Potassium Iodide and the Configuration-coordinate Model. (Siano & Metzler) . . . 2042
Molecular Complexes. Part 13: Influence of Charge Transfer Interactions on the Structures of π-π^* Electron Donor-Acceptor Molecular Complexes. (Mayoh & Prout) . . . 1072

II, 6 Statistical Mechanics (reversible and irreversible; see also II, 8)
Critical Opalescence of Polymer Solutions. (Vrij & Van Den Esker) . . . 513
Depolarized Rayleigh Scattering and the Mean-squared Optical Anisotropies of n-Alkanes in Solution. (Patterson & Flory) . . . 1098
Elementary Stochastic Treatment of Thermal Transpiration in Terms of the " Dusty-Gas " Model. (Wright & Humphreys) . . . 211
Molecular Field Treatment of Nematic Liquid Crystals. (Humphries, James & Lockhurst) 1031
Optical Anisotropies of Polyoxyethylene Oligomers. (Patterson & Flory) . . . 1111
Statistical Analysis of the Conformations and Isomeric Equilibria of Hexanes, Heptanes, Octanes and Nonanes. (Heatley) . . . 2097
Statistical Thermodynamics of Mixtures. A New Version for the Theory of Conformal Solution. (Mansoori & Leland, Jr.) . . . 320

II, 7 Thermodynamics (theroretical developments)
A Definition of the Primary Medium Effect for Individual Ionic Species in Solution. (Hall) 25
Cell Theory for the Liquid State. (Adams & Matheson) . . . 1536
Critical Properties of Mixtures Containing Siloxanes. (Young) . . . 452
Determination by the Mass Spectrometric Knudsen Cell Method of the Atomization Energies of the Molecules PO and PO_2. (Drowart, Myers, Szwarc, Auwera-Mahieu & Uy) . . . 1749
Double Layer Interaction Energy of a Concentrated System of Charged Parallel Colloidal Plates in Aqueous Electrolyte. (Chen & Levine) . . . 1497
Effusion-Mass Spectrometric Study of the Thermodynamic Properties of AlO^- and AlO_2^-. (Srivastava, Uy & Farber) . . . 1388
Enthalpy and Entropy of Fusion and the Equilibrium Melting Point of Polyethylene Oxide. (Afifi-Effat & Hay) . . . 656
Exact Phenomenological Interpretation of the Micelle Point in Multi-Component Systems. (Hall) . . . 668
Experimental and Theoretical Study of " Random Walk " Disorder in Mercury(II) Amidobromide. (Worswick, Mayers & Staveley) . . . 539
Gas-Liquid Critical Temperatures of Polydimethylsiloxane Mixtures. (Young) . . . 580
Generalized Treatment of Alkanes. Part 2. (Somayajulu & Zwolinski) . . . 1971

PAGE

Intermolecular Interactions in Methane, Carbon Tetrafluoride and Sulphur Hexafluoride. (Snook & Spurling) 1359
Interpretation of Activity Coefficients in Alkane Systems. (Patterson, Tewari & Schreiber) 885
Ionic Reaction Equilibria in Electrical Double Layers. (Simons & Bass) 1872
Thermodynamic Properties of Aqueous Solutions of Bivalent Sulphates. (Pitzer) . . 101
Thermodynamic Treatment of Some Factors Affecting the Interaction Between Colloidal Particles. (Hall) 2169
Thermodynamics of Solutions of Interacting Aggregates by Methods Similar to Surface Thermodynamics. Part 1: General Equations for Multi-component Systems. (Hall) 1439

II, 8 Transport Phemomena (theoretical; see also I, 6 and II, 6)
Collision Cross-Sections for Low Energy Electrons in Methane. (Duncan & Walker) . 1514
Diffusion at Strictly Uniform Pressure in a Mixture of a Dissociating Gas and an Inert Gas. (Wright) 1955
Diffusion of Benzene, Phenol and Resorcinol in Propane-1,2-diol, and the Validity of the Stokes-Einstein Equation. (Mitchell & Tyrrell) 385
Remarks on the Stefan-Maxwell Equations for Diffusion in a Dusty Gas. (Wright) . 1951
Self-diffusion Coefficients in Dense Fluids; the Corrected Enskog Theory. (Dymond) . 1789
Stochastic Relations for Diffusion at Strictly Uniform Pressure in Imperfect Gases. (Wright) 1959
Test of the Onsager Relation for Ideal Gas Transport in Membranes. (Mason, Wendt & Bresler) 1938

AUTHOR INDEX—VOLUME 68, 1972

PAGE

Aarons, L. J., Guest, M. F. and **Hillier, I. H.** 1866
Abrahamson, E. W., Andrews, L. J., Husain, D. and **Wiesenfeld, J. R.** . 48
Absar, I., Robert, J.-B. and **Van Wazer, J. R.** 799
Adamczyk, A. and **Wilkinson, F.** . . 2031
Adams, D. B. See *Clark, D. T.* and
Adams, D. J. and **Matheson, A. J.** . . 1536
Adams, D. R. and **Wilkinson, F.** . . 586
Adams, I. See *Thomas, H. M., Adams, I., Williams, R. H.* and *Barber, M.*
Afifi-Effat, A. M. and **Hay, J. N.** . . 656
Ahmed, A. M. I. and **Eades, R. G.** 1337, 1623, 2017
—**Eades, R. G., Jones, T. A.** and **Llewellyn, J. P.** 1316
—See *Jones, G. P., Roberts, R. T., Anderton, K. J.* and
Ali Mansoori, G. and **Leland, Jr., Thomas W.** 320
Allen, G. See *Heatley, F., Allen, G., Hameed, S.* and *Jones, P. W.*
Anderton, K. J. See *Jones, G. P., Roberts, R. T., Anderton, K. J.* and *Ahmed, A. M. I.*
Andreassen, A. L. See *Chaing, J. F., Kratus, M. T., Andreassen, A. L.* and *Bauer, S. H.*
Andrews, L. J. See *Abrahamson, E. W., Andrews, L. J., Husain, D.* and *Wiesenfeld, J. R.*
Ang, T. T. and **Dunell, B. A.** . . . 1331
Armstrong, D. R., Fortune, R., Perkins, P. G. and **Stewart, J. J. P.** . . 1839
Atherton, N. M. and **Blackhurst, A. J.** . 470
—and **Strach, S. J.** 374
—and **Waldram, D.** 413

Baird, M. E. and **Sengupta, C. R.** . . 1795
Baise, A. I. 1904
Baraldi, I., Momicchioli, F. and **Bruni, M. C.** 1571
—See *Momicchioli, F., Baraldi, I.* and *Bruni, M. C.*
Barber, M. See *Thomas, J. M., Adams, I., Williams, R. H.* and
Barboiu, V., Emsley, J. W. and **Lindon, J. C.** 241
Barker, R. 421
Barlow, A. J. and **Singh, R. P.** . . 1404
—See *Purdie, N.* and
Barnes, A. J., Hallam, H. E. and **Howells, J. D. R.** 737
—and **Howells, J. D. R.** 729
—and **Murto, J.** 1642
Barraclough, C. G. and **Gregson, A. K.** . 177
Barriol, J. See *Thiebaut, J.-M., Rivail, J.-L.* and
Barrow, R. F. See *Yee, K. K.* and
—See *Yee, K. K., Barrow, R. F.* and *Rogstad, Astri*

PAGE

Bass, L. See *Simons, R.* and
Bauer, S. H. See *Chaing, J. F., Kratus, M. T., Andreassen, A. L.* and
Bavia, M., Di Lonardo, G., Galloni, G. and **Trombetti, A.** 615
Baxendale, J. H. and **Fiti, Maria** . . 218
Bemand, P. P. and **Clyne, M. A. A.** . 1758
Benson, H. G. and **Murrell, J. N.** . 129, 137
Binks, J. H., Bullock, A. T. and **Hopkin, D. J.** 814
Blackhurst, A. J. See *Atherton, N. M.* and
Blandamer, M. J. and **Burdett** . . 577
Block, H., Groves, R., Lord, P. W. and **Walker, S. M.** 1890
Boon, M. R. 1600
Boota, R. J., Starkie, H. C. and **Symons, M. C. R.** 638
Breeze, A. and **Cruickshank, D. W. J.** . 2144
—See *Collins, G. A. D., Cruickshank, D. W. J.* and
Bresler, E. H. See *Mason, E. A., Wendt, R. P.* and
Breuer, G. M., Hackett, P. A., Phillips, D. and **Rockley, M. G.** . . . 1995
Bridge, N. James and **Vincent, D.** . . 1522
Briggs, A. G. and **Kemp, R. J.** . . 1083
Brittain, A. H. See *Finnigan, D. J., Cox, A. P., Brittain, A. H.* and *Smith, J. G.*
Broadbent, T. W. and **Callear, A. B.** . 1367
Brundle, C. R. and **Jones, G. R.** . . 959
Bruni, M. C. See *Baraldi, I., Momicchioli, F.* and
—See *Momicchioli, F., Baraldi, I.* and
Brustolon, M., Corvaja, C. and **Pasimeni, L.** 2150
—See *Pasimeni, L., Brustolon, M.* and *Corvaja, Prof. C.*
Bullock, A. T. See *Binks, J. H., Bullock, A. T.* and *Hopkin, D. J.*
Burdett, T. R. See *Blandamer, M. J.* and

Cadioli, B. and **Pincelli, U.** 991
Callear, A. B. and **McGurk, J. C.** . . 289
—and **Wood, P. M.** 302
—See *Broadbent, T. W.* and
Canadine, R. M. and **Jones, D. E. H.** . 1665
Carlotti, M., Di Lonardo, G., Galloni, G. and **Trombetti, A.** 1473
Carpenter, J. H., Rimmer, D. F. and **Whiffen, D. H.** 1914
Cavell, E. A. S. and **Knight, P. C.** . . 765
Chadwick, D., Legon, A. C. and **Millen, D. J.** 2064
Chaing, J. F., Kratus, M. T., Andreassen, A. L. and **Bauer, S. H.** 1274
Chambers, R. D. See *Clark, D. T., Chambers, R. D., Kilcast, D.* and *Musgrave, W. K. R.*
Chen, C. S. and **Levine, S.** 1497
Cheng, C. L., Murthy, D. S. N. and **Ritchie, G. L. D.** 1679
Chew, K. F., Derbyshire, W. and **Logan, N.** 594

PAGE

Clack, D. W. 1672
Clark, D. T. and **Adams, D. B.** . . 1819
—**Chambers, R. D., Kilcast, D.** and **Musgrave, W. K. R.** 309
Clarke, J. H. R. and **Hartley, P. J.** . 1634
Clark, R. J. H., Hunter, B. K. and **Mitchell, P. D.** 476
Claxton, T. A., Godfrey, M. J. and **Smith, N. A.** 181
—**Godfrey, M. J.** and **Weiner, B. L. J.** . 566
—See *Dixon, M., Claxton, T. A.* and *Smith, J. A. S.*
Clifford, A. A., Duckels, M. I. and **Walker, N.** 407
Clipsham, R. M. and **Whitehead, M. A.** . 55, 72
Clyne, M. A. A. and **Connor, J.** . . 1220
—**Coxon, J. A.** and **Townsend, L. W.** . 2134
—and **Cruse, H. W.** 1281, 1377
—**Cruse, H. W.** and **Watson, R. T.** . 153
—See *Bemand, P. P.* and
Cochran, M. A., Jones, P. B., North, A. M. and **Pethrick, R. A.** . . 1719
Cohen, A. J. and **Whitehead, M. A.** . 649
Collins, G. A. D., Cruickshank, D. W. J. and **Breeze, A.** 1189
Connor, J. See *Clyne, M. A. A.* and
Cook, M. See *Williams, G., Cook, M.* and *Hains, P. J.*
Corvaja, C. See *Brustolon, M., Corvaja, C.* and *Pasimeni, L.*
—See *Pasimeni, L., Brustolon, M.* and
Covington, A. K., Hassall, M. L. and **Lantzke, I. R.** 1352
Cox, A. P. See *Finnigan, D. J., Cox, A. P., Brittain, A. H.* and *Smith, J. G.*
Cox, A. Peter and **Waring, Stephen** . 1060
Coxon, J. A. See *Clyne, M. A. A., Coxon, J. A.* and *Townsend, L. W.*
Cradock, S., Ebsworth, E. A. V. and **Murdoch, J. D.** 86
—**Ebsworth, E. A. V., Savage, W. J.** and **Whiteford, R. A.** 934
—and **Rankin, D. W. H.** 940
—and **Whiteford, R. A.** 281
Cruickshank, D. W. J. See *Breeze, A.* and
—See *Collins, G. A. D., Cruickshank, D. W. J.* and *Breeze, A.*
Cruse, H. W. See *Clyne, M. A. A.* and
—See *Clyne, M. A. A., Cruse, H. W.* and *Watson, R. T.*
Cundall, R. B. and **Pereira, L. C.** . . 1152
—and **Robinson, D. A.** . 1133, 1145, 1323, 1691

Das Gupta, G. and **Phillips, D.** . . 2003
Davidson, D. W. See *Garg, S. K., Morris, B.* and
Davidson, R., Hog, J., Warsop, P. A. and **Whiteside, J. A. B.** 1652
—and **Warsop, P. A.** 1875
Davies, J., Ormondroyd, S. and **Symons, M. C. R.** 686
Davies, J. B. and **Hallam, H. E.** . . 509
Dawson, Peter 1448
Day, P. See *Disipio, L., Oleari, L.* and
Deakin, J. J. and **Husain, D.** . . 41, 1603
Dempster, D. N., Morrow, T., Rankin, R. and **Thompson, G. F.** 1479

PAGE

Derbyshire, W. See *Chew, K. F., Derbyshire, W.* and *Logan, N.*
Derwent, R. G. and **Thrush, B. A.** . . 720
Dewar, M. J. S. and **Goodman, D. W.** . 1784
Dillon, M. Da Graca Cravierinha and **Smith, J. A. S.** 2183
Di Lonardo, G., Galloni, G., Trombetti, A. and **Zauli, C.** 2009
—See *Bavia, M., Di Lonardo, G., Galloni, G.* and *Trombetti, A.*
—See *Carlotti, M., Di Lonardo, G., Galloni, G.* and *Trombetti, A.*
Disipio, L., Oleari, L. and **Day, P.** . . 776
Dixon, M., Claxton, T. A. and **Smith, J. A. S.** 2158
Doggett, G. 2075
Dogonadze, R. R., Ulstrup, J. and **Kharkats, Yu. I.** 744
Donovan, R. J., Little, D. J. and **Konstantatos, J.** 1812
Douglass, D. C. See *McBrierty, M. J., Douglass, D. C.* and *Falcone, D. R.*
Drowart, J., Myers, C. E., Szwarc, R., Vander Auwera-Mahieu, A. and **Uy, O. M.** 1749
Duckels, M. I. See *Clifford, A. A., Duckels, M. I.* and *Walker, N.*
Duncan, C. W. and **Walker, Isobel C.** . 1514, 1800
Dunell, B. A. See *Ang, T. T.* and
—See *Ulrich, S. E.* and
Dyas, C. See *Pittman, Jr., C. U., Dyas, C., Engelman, C.* and *Kispert, L. D.*
Dymond, J. H. 1789

Eades, R. G. See *Ahmed, A. M. I.* and
—See *Ahmed, A. M. I., Eades, R. G., Jones, T. A.* and *Llewellyn, J. P.*
Ebsworth, E. A. V. See *Cradock, S., Ebsworth, E. A. V.* and *Murdoch, J. D.*
—See *Cradock, S., Ebsworth, E. A. V., Savage, W. J.* and *Whiteford, R. A.*
Eisenberg, H. See *Reisler, E., Eisenberg, H.* and *Minton, A. P.*
Eley, D. D., Hey, M. J. and **Ward, A. J. I.** 460
Elson, I. H., Kemp, T. J. and **Stone, T. J.** 1452
Emsley, J. W., Lindon, N. C. and **Salman, S. R.** 1343
—See *Barboiu, V., Emsley, J. W.* and *Lindon, J. C.*
Engelman, C. See *Pittman, Jr., C. U., Dyas, C., Engelman, C.* and *Kispert, L. D.*
Erickson, W. D. and **Linnett, J. W.** . 693
Evans, D. F. and **Tucker, J. N.** . . 174
Evans, S., Green, J. C. and **Jackson, S. E.** 249
—**Green, M. L. H., Jewitt, B., Orchard, A. F.** and **Pygall, C. F.** . . . 1847
—**Green, J. C., Joachim, P. J., Orchard, A. F., Turner, D. W.** and **Maier, J. P.** 905
Everdell, M. H. See *Homer, J., Everdell, M. H., Jackson, C. J.* and *Whitney, P. M.*

Falcone, D. R. See *McBrierty, M. J., Douglass, D. C.* and
Fantechi, R. and **Helcke, G. A.** . . 924
—See *Helcke, G. A.* and

PAGE

Farber, M. See *Srivastava, R. D., Uy, O. M.* and
Field, D., Gray, N. A. B. and **Knewstubb, P. F.** 852
Finnigan, D. J., Cox, A. P., Brittain, A. H. and **Smith, J. G.** 548
Fiti, Maria. See *Baxendale, J. H.* and
Flint, C. D. and **Greenough, P.** . . . 897
Flory, P. J. See *Patterson, G. D.* and
Fortune, R. See *Armstrong, D. R., Fortune, R., Perkins, P. G.* and *Stewart, J. J. P.*
Freeman, C. G. See *Tellinghuisen, J. B., Winkler, C. A., Freeman, C. G., McEwan, M. J.* and *Phillips, L. F.*
Futrell, J. H. See *Kevan, Larry* and

Galabov, B. and **Orville-Thomas, W. J.** . 1778
Galloni, G. See *Bavia, M., Di Lonardo, G., Galloni, G.* and *Trombetti, A.*
—See *Carlotti, M., Di Lonardo, G., Galloni, G.* and *Trombetti, A.*
—See *Di Lonardo, G., Galloni, G., Trombetti, A.* and *Zauli, C.*
Gardner, Margaret and **Rogers, D. E.** . 1410
Garg, S. K., Morris, B. and **Davidson, D. W.** 481
Gevirzman, R. and **Kozirovski, Y.** . . . 1699
Ginns, I. S. and **Symons, M. C. R.** . 631
Godfrey, M. J. See *Claxton, T. A., Godfrey, M. J.* and *Smith, N. A.*
—See *Claxton, T. A., Godfrey, M. J.* and *Weiner, B. L. J.*
Goodman, D. W. See *Dewar, M. J. S.* and
Govil, G. and **Saran, A.** 1176
Gray, N. A. B. See *Field, D., Gray, N. A. B.* and *Knewstubb, P. F.*
Green, J. C. See *Evans, S., Green, J. C.* and *Jackson, S. E.*
—See *Evans, S., Green, J. C., Joachim, P. J., Orchard, A. F., Turner, D. W.* and *Maier, J. P.*
Green, M. L. H. See *Evans, S., Green, M. L. H., Jewitt, B., Orchard, A. F.* and *Pygall, C. F.*
Green, R. D. and **Sheppard, N.** . . 821
Greenough, P. See *Flint, C. D.*
Gregson, A. K. See *Barraclough, C. G.* and
Groves, R. See *Block, H., Groves, R., Lord, P. W.* and *Walker, S. M.*
Guest, M. F., Hillier, I. H. and **Saunders, V. R.** 114, 867, 2070
—See *Aarons, L. J., Guest, M. F.* and *Hillier, I. H.*
—See *Lynaugh, N., Lloyd, D. R., Guest, M. F., Hall, M. B.* and *Hillier, I. H.*

Hackett, P. A. See *Breuer, G. M., Hackett, P. A., Phillips, D.* and *Rockley, M. G.*
Haffmans, R. and **Larkin, I. W.** . . 1729
Hains, P. J. See *Williams, G., Cook, M.* and
Hall, D. G. . . . 25, 668, 1439, 2169
Hall, M. B. See *Lynaugh, N., Lloyd, D. R., Guest, M. F., Hall, M. B.* and *Hillier, I. H.*
Hallam, H. E. See *Barnes, A. J., Hallam, H. E.* and *Howells, J. D. R.*
—See *Davies, J. B.* and
Hameed, S. See *Heatley, F., Allen, G., Hameed, S.* and *Jones, P. W.*
Hancock, G., Ridley, B. A. and **Smith, I. W. M.** 2117
Harding, M. J. 234
Hartley, P. J. See *Clarke, J. H. R.* and
Hassall, M. L. See *Covington, A. K., Hassall, M. L.* and *Lantske, I. R.*
Hay, J. N. See *Afifi-Effat, A. M.* and
Heatley, F. 2097
—**Allen, G., Hameed, S.** and **Jones, P. W.** 1547
Helcke, G. A. and **Fantechi, R.** . . . 912
—See *Fantechi, R.* and
Hellner, C., Lindqvist, L. and **Roberge, P. C.** 1928
Hey, M. J. See *Eley, D. D., Hey, M. J.* and *Ward, A. J. I.*
Hill, N. J. 427
Hillier, I. H. See *Aarons, L. J., Guest, M. F.* and
—See *Guest, M. F., Hillier, I. H.* and *Saunders, V. R.*
—See *Lynaugh, N., Lloyd, D. R., Guest, M. F., Hall, M. B.* and
Hirst, D. M. and **Linington, M. E.** . 1988, 2200
Hitchman, M. A. 846
Hog, J. See *Davidson, R., Hog, J., Warsop, P. A.* and *Whiteside, J. A. B.*
Homer, J., Everdell, M. H., Jackson, C. J. and **Whitney, P. M.** 874
—and **Redhead, D. L.** 793
Hopkin, D. J. See *Binks, J. H., Bullock, A. T.* and
Howells, J. D. R. See *Barnes, A. J.* and
—See *Barnes, A. J., Hallam, H. E.* and
Humphreys, A. E. See *Wright, P. G.* and
Humphries, R. L., James, P. G. and **Luckhurst, G. R.** 1031
Hunter, B. K. See *Clark, R. J. H., Hunter, B. K.* and *Mitchell, P. D.*
Husain, D. and **Littler, J. G. F.** . . 2110
—See *Abrahamson, E. W., Andrews, L. J., Husain, D.* and *Wiesenfeld, J. R.*
—See *Deakin, J. J.* and
Huyton, D. W. and **Woodward, T. W.** . 144
Hyatt, D. and **Knewstubb, P. F.** . . 202

Jackson, C. J. See *Homer, J., Everdell, M. H., Jackson, C. J.* and *Whitney, P. M.*
Jackson, S. E. See *Evans, S., Green, J. C.* and
James, P. G. See *Humphries, R. L., James, P. G.* and *Luckhurst, G. R.*
Jewitt, B. See *Evans, S., Green, M. L. H., Jewitt, B., Orchard, A. F.* and *Pygall, C. F.*
Joachim, P. J. See *Evans, S., Green, J. C., Joachim, P. J., Orchard, A. F., Turner, D. W.* and *Maier, J. P.*
Johnstone, R. A. W. and **Mellon, F. A.** . 1209
Jones, D. E. H. See *Canadine, R. M.* and
Jones, G. P., Roberts, R. T., Anderton, K. J. and **Ahmed, A. M. I.** . . 400
Jones, G. R. See *Brundle, C. R.* and
Jones, P. B. See *Cochran, M. A., Jones, P. B., North, A. M.* and *Pethrick, R. A.*

PAGE

Jones, P. W. See *Heatley, F., Allen, G., Hameed, S.* and
Jones, R. G. and **Partington, P.** . . 2087
Jones, T. A. See *Ahmed, A. M. I., Eades, R. G., Jones, T. A.* and *Llewellyn, J. P.*

Kanaeda, H. See *Ohkubo, K.* and
Kastha, G. S. See *Nandy, S. K., Mukherjee, D. K., Roy, S. B.* and
Kemp, R. J. See *Briggs, A. G.* and
Kemp, T. J. See *Elson, I. H., Kemp, T. J.* and *Stone, T. J.*
Kettle, J. P. and **Price, A. H.** . . 1306
Kevan, Larry and **Futrell, J. H.** . . 1742
Kharkats, Yu. I. See *Dogonadze, R. R., Ulstrup, J.* and
Kilcast, D. and **Thomson, C.** . . . 435
—See *Clark, D. T., Chambers, R. D., Kilcast, D.* and *Musgrave, W. K. R.*
Kispert, L. D. See *Pittman, Jr., C. U., Dyas, C., Engelman, C.* and
Knewstubb, P. F. 1196
—See *Field, D., Gray, N. A. B.* and
—See *Hyatt, D.* and
Knight, P. C. See *Cavell, E. A. S.* and
Konstantatos, J. See *Donovan, R. J., Little, D. J.* and
Kozirovski, Y. See *Gevirzman, R.* and
Kratus, M. T. See *Chaing, J. F., Kratus, M. T., Andreassen, A. L.* and *Bauer, S. H.*
Kuczman, A. See *Mezey, P.* and
Kuntz, P. J. and **Roach, A. C.** . . 259

Ladd, J. A. See *Ramsey, J. A., Ladd, J. A.* and *Orville-Thomas, W. J.*
Lambert, J. D. 364
Lantzke, I. R. See *Covington, A. K., Hassall, M. L.* and
Larkin, I. W. See *Haffmans, R.* and
Lazzeretti, P. and **Taddei, F.** . . 839, 1825
Legon, A. C. See *Chadwick, D., Legon, A. C.* and *Millen, D. J.*
Leland, Jr., Thomas W. See *Ali Mansoori, G.* and
Levine, S. See *Chen, C. S.* and
Leyshon, L. J. and **Reiser, A.** . . 1918
Lindemann, R. and **Zundel, G.** . . 979
Lindon, J. C. See *Barboiu, V., Emsley, J. W.* and
—See *Emsley, J. W., Lindon, J. C.* and *Salman, S. R.*
Lindqvist, L. See *Hellner, C., Lindqvist, L.* and *Roberge, P. C.*
Linington, M. E. See *Hirst, D. M.* and
Linnett, J. W. See *Erickson, W. D.* and
Little, D. J. See *Donovan, R. J., Little, D. J.* and *Konstantatos, J.*
Littler, J. G. F. See *Husain, D.* and
Llewellyn, J. P. See *Ahmed, A. M. I., Eades, R. G., Jones, T. A.* and
Lloyd, D. R. and **Lynauch, N.** . . 947
—See *Lynaugh, N., Lloyd, D. R., Guest, M. F., Hall, M. B.* and *Hillier, I. H.*
Lochhead, R. Y. and **North, A. M.** . . 1089
Logan, N. See *Chew, K. F., Derbyshire, W.* and

PAGE

Lord, P. W. See *Block, H., Groves, R., Lord, P. W.* and *Walker, S. M.*
Luckhurst, G. R. See *Humphries, R. L., James, P. G.* and
Luoma, John Ross and **Nee, Yeu Tsang** . 1595
Lynaugh, N., Lloyd, D. R., Guest, M. F., Hall, M. B. and **Hillier, I. H.** . . 2192
—See *Lloyd, D. R.* and
Lyons, A. R., Neilson, G. W. and **Symons, M. C. R.** 807
—and **Symons, M. C. R.** . 502, 622, 1589
—**Symons, M. C. R.** and **Yandell, J. K.** . 495

McAloon, B. J. and **Perkins, P. G.** . 1121, 1833
McBrierty, M. J., Douglass, D. C. and **Falcone, D. R.** 1051
McEwan, M. J. See *Tellinghuisen, J. B., Winkler, C. A., Freeman, C. G., McEwan, M. J.* and *Phillips, L. F.*
McFarlane, H. C. E., McFarlane, W. and **Rycroft, D. S.** 1300
McFarlane, W. See *McFarlane, H. C. E., McFarlane, W.* and *Rycroft, D. S.*
McGurk, J. C. See *Callear, A. B.* and
MacLagan, R. G. A. R. . . . 1117
Maier, J. P. and **Turner, D. W.** . . 711
—See *Evans, S., Green, J. C., Joachim, P. J., Orchard, A. F., Turner, D. W.* and
Malcolme-Lawes, D. J. . . . 1613, 2051
—and **Urch, D. S.** 967
Mason, E. A., Wendt, R. P. and **Bresler, E. H.** 1938
Matheson, A. J. See *Adams, D. J.* and
Mayers, D. F. See *Worswick, R. D., Mayers, D. F.* and *Staveley, L. A. K.*
Mayoh, B. and **Prout, C. K.** . . . 1072
Meic, Z. and **Randic, M.** 444
Mellon, F. A. See *Johnstone, R. A. W.* and
Metzler, D. E. See *Siano, D. B.* and
Mezey, P. and **Kucsman, A.** 2060
Millen, D. J. See *Chadwick, D., Legon, A. C.* and
Minton, A. P. See *Reisler, E., Eisenberg, H.* and
Mitchell, M. and **Tyrrell, H. J. V.** . . 385
Mitchell, P. D. See *Clark, R. J. H., Hunter, B. K.* and
Momicchioli, F., Baraldi, I. and **Bruni, M. C.** 1556
—See *Baraldi, I., Momicchioli, F.* and *Bruni, M. C.*
Morley, C., Ridley, B. A. and **Smith, I. W. M.** 2127
—and **Smith, I. W. M.** 1016
Morris, B. See *Garg, S. K., Morris, B.* and *Davidson, D. W.*
Morrow, T. See *Dempster, D. N., Morrow, T., Rankin, R.* and *Thompson, G. F.*
Mukherjee, D. K. See *Nandy, S. K., Mukherjee, D. K., Roy, S. B.* and *Kastha, G. S.*
Murdoch, J. D. See *Cradock, S., Ebsworth, E. A. V.* and
Murrell, J. N. and **Ralston, B. J.** . . 1393
—and **Schmidt, W.** 1709
—See *Benson, H. G.* and

PAGE

Murthy, D. S. N. See *Cheng, C.L., Murthy, D. S. N.* and *Ritchie, G.L.D.*
Murto, J. See *Barnes, A. J.* and
Musgrave, W. K. R. See *Clark, D. T., Chambers, R. D., Kilcast, D.* and
Myers, C. E. See *Drowart, J., Myers, C. E., Szwarc, R., Vander Auwera-Mahieu, A.* and *Uy, O. M.*

Nandy, S. K., Mukherjee, D. K., Roy, S. B., and **Kastha, G. S.** . . . 1312
Nee, Yeu Tsang. See *Luoma, John Ross* and
Nehring, J. and **Saupe, A.** 1
Neilson, G. W. and **Symons, M. C. R.** 1582, 1722
—See *Lyons, A. R., Neilson, G. W.* and *Symons, M. C. R.*
North, A. M. and **Parker, T. G.** . . 1094
—See *Cochran, M. A., Jones, P. B., North, A. M.* and *Pethrick, R. A.*
—See *Lochhead, R. Y.* and
Nottin, J. P. See *Williams, G., Watts, D. C.* and

Oakes, J. 1464
Ohkubo, K. and **Kanaeda, H.** . . 1164
Oleari, L. See *Disipio, L., Oleari, L.* and *Day, P.*
Orchard, A. F. See *Evans, S., Green, M. L. H., Jewitt, B., Orchard, A. F.* and *Pygall, C. F.*
—See *Evans, S., Green, J. C., Joachim, P. J., Orchard, A. F., Turner, D. W.* and *Maier, J. P.*
Ormondroyd, S. See *Davies, J., Ormondroyd, S.* and *Symons, M. C. R.*
Orville-Thomas, W. J. See *Galabov, B.* and
—See *Ramsey, J. A., Ladd, J. A.* and

Parker, T. G. See *North, A. M.* and
Parkes, D. A. and **Sugden, T. M.** . . 600
Partington, P. See *Jones, R. G.* and
Pasimeni, L., Brustolon, M. and **Corvaja, Prof. C.** 223
—See *Brustolon, M., Corvaja, C.* and
Patterson, D., Tewari, Y. B. and **Schreiber, H. P.** 835
Patterson, G. D. and **Flory, P. J.** . 1098, 1111
Peacock, Robert D. 169
Pereira, L. C. See *Cundall, R. B.* and
Perkins, P. G. See *Armstrong, D. R., Fortune, R., Perkins, P. G.* and *Stewart, J. J. P.*
—See *McAloon, B. J.* and
Pethrick, R. A. See *Cochran, M. A., Jones, P. B., North, A. M.* and
Phillips, D. See *Breuer, G. M., Hackett, P. A., Phillips, D.* and *Rockely, M. G.*
—See *Das Gupta, G.* and
Phillips, L. F. See *Tellinghuisen, J. B., Winkler, C. A., Freeman, C. G., McEwan, M. J.* and
—See *Winkler, C. A., Tellinghuisen, J. B.* and
Pincelli, U. See *Cadioli, B.* and
Pitt, M. G. See *Stals, J.* and
Pittman, Jr., C. U., Dyas, C., Engelman, C. and **Kispert, L. D.** 345
Pitzer, K. S. 101
Price, A. H. See *Kettle, J. P.* and
Prout, C. K. See *Mayoh, B.* and
Purdie, N. and **Barlow, A. J.** 33
Pygall, C. F. See *Evans, S., Green, M. L. H., Jewitt, B., Orchard, A. F.* and

Ralston, B. J. See *Murrell, J. N.* and
Ramsey, J. A., Ladd, J. A. and **Orville-Thomas, W. J.** 193
Randic, M. See *Meic, Z.* and
Rankin, D. W. H. See *Cradock, S.* and
Rankin, R. See *Dempster, D. N., Morrow, T., Rankin, R.* and *Thompson, G. F.*
Rao, K. V. S. and **Symons, M. C. R.** . 2081
Redhead, D. L. See *Homer, J.* and
Reiser, A. See *Leyshon, L. J.* and
Reisler, E., Eisenberg, H. and **Minton, A. P.** 1001
Reynolds, P. A. and **White, J. W.** . . 1434
Ridley, B. A. and **Smith, I. W. M.** . . 1231
—See *Hancock, G., Ridley, B. A.* and *Smith, I. W. M.*
—See *Morley, C., Ridley, B. A.* and *Smith, I. W. M.*
Rimmer, D. F. See *Carpenter, J. H., Rimmer, D. F.* and *Whiffen, D. H.*
Ritchie, G. L. D. See *Cheng, C. L., Murthy, D. S. N.* and
Rivail, J.-L. See *Thiebaut, J.-M., Rivail, J.-L.* and *Barriol, J.*
Roach, A. C. See *Kuntz, P. J.* and
Roberge, P. C. See *Hellner, C., Lindqvist, L.* and
Robert, J.-B. See *Absar, I., Robert, J.-B.* and *Van Wazer, J. R.*
Roberts, R. T. See *Jones, G. P., Roberts, R. T., Anderton, K. J.* and *Ahmed, A. M. I.*
Robinson, D. A. See *Cundall, R. B.* and
Rockley, M. G. See *Greuer, G. M., Hackett, P. A., Phillips, D.* and
Rogers, D. E. See *Gardner, Margaret* and
Rogstad, Astri. See *Yee, K. K., Barrow, R. F.* and
Roy, S. B. See *Nandy, S. K., Mukherjee, D. K., Roy, S. B.* and *Kastha, G. S.*
Rycroft, D. S. See *McFarlane, H. C. E., McFarlane, W.* and

Salman, S. R. See *Emsley, J. W., Lindon, J. C.* and
Saran, A. See *Govil, G.* and
Saunders, V. R. See *Guest, M. F., Hillier, I. H.* and
Saupe, A. See *Nehring, J.* and
Savage, W. J. See *Cradock, S., Ebsworth, E. A. V., Savage, W. J.* and *Whiteford, R. A.*
Schmidt, W. See *Murrell, J. N.* and
Schreiber, H. P. See *Patterson, D., Tewari, Y. B.* and
Sengupta, C. R. See *Baird, M. E.* and
Sheppard, N. See *Green, R. D.* and
Siano, D. B. and **Metzler, D. E.** . . 2042
Simons, R. and **Bass, L.** 1872

PAGE

Singh, R. P. See *Barlow, A. J.* and
Smith, I. W. M. See *Hancock, G., Ridley, B. A.* and
—See *Morley, C.* and
—See *Morley, C., Ridley, B. A.* and
—See *Ridley, B. A.* and
Smith, J. A. S. See *Dillon, M. Da Graca Cravierinha* and
—See *Dixon, M., Claxton, T. A.* and
Smith, J. G. See *Finnigan, D. J., Cox, A. P., Brittain, A. H.* and
Smith, N. A. See *Claxton, T. A., Godfrey, M. J.* and
Snook, I. K. and **Spurling, T. H.** . . 1359
Somayajulu, G. R. and **Zwolinski, B. J.** . 1971
Spurling, T. H. See *Snook, I. K.* and
Srivastava, R. D., Uy, O. M. and **Farber, M.** 1388
Stalls, J. and **Pitt, M. G.** 1659
Starkie, H. C. See *Booth, R. J., Starkie, H. C.* and *Symons, M. C. R.*
Staveley, L. A. K. See *Worswick, R. D., Mayers, D. F.* and
Stewart, J. J. P. See *Armstrong, D. R., Fortune, R., Perkins, P. G.* and
Stone, T. J. See *Elson, I. H., Kemp, T. J.* and
Strach, S. J. See *Atherton, N. M.* and
Sturm, J. E. See *Tomalesky, R. E.* and
Sugden, T. M. See *Parkes, D. A.* and
Symons, M. C. R. 1897
—and **Wilkinson, J. G.** 1265
—See *Booth, R. J., Starkie, H. C.* and
—See *Davies, J., Ormondroyd, S.* and
—See *Ginns, I. S.* and
—See *Lyons, A. R.* and
—See *Lyons, A. R., Neilson, G. W.* and
—See *Lyons, A. R., Symons, M. C. R.* and *Yandell, J. K.*
—See *Neilson, G. W.* and
—See *Rao, K. V. S.* and
Szwarc, R. See *Drowart, J., Myers, C. E., Szwarc, R., Vander Auwera-Mahieu, A.* and *Uy, O. M.*

Taddei, F. See *Lazzeretti, P.* and
Tellinghuisen, J. B., Winkler, C. A., Freeman, C. G., McEwan, M. J. and **Phillips, L. F.** 833
—See *Winkler, C. A., Tellinghuisen, J. B.* and *Phillips, L. F.*
Temme, F. P. and **Waddington, T. C.** . 350
Tewari, Y. B. See *Patterson, D., Tewari, Y. B.* and *Schreiber, H. P.*
Thiebaut, J.-M., Rivail, J.-L. and **Barriol, J.** 1253
Thomas, J. M., Adams, I., Williams, R. H. and **Barner, M.** 755
Thompson, G. F. See *Dempster, D. N., Morrow, T., Rankin, R.* and
Thomson, C. See *Kilcast, D.* and
Thrush, B. A. and **Wild, A. H.** . . 2023
—See *Derwent, R. G.* and
Tomalesky, R. E. and **Sturm, J. E.** . . 1241
Townsend, L. W. See *Clyne, M. A. A., Coxon, J. A.* and
Trombetti, A. See *Bavia, M., Di Lonardo, G., Galloni, G.* and
—See *Carlotti, M., Di Lonardo, G., Galloni, G.* and
—See *Di Lonardo, G., Galloni, G., Trombetti, A.* and *Zauli, C.*
Tucker, J. N. See *Evans, D. F.* and
Turner, D. J. 643
Turner, D. W. See *Evans, S., Green, J. C., Joachim, P. J., Orchard, A. F., Turner, D. W.* and *Maier, J. P.*
—See *Maier, J. P.* and
Tyrrell, H. J. V. See *Mitchell, M.* and

Ulrich, S. E. and **Dunell, B. A.** . . . 680
Ulstrup, J. See *Dogonadze, R. R., Ulstrup, J.* and *Kharkats, Yu. I.*
Urch, D. S. See *Malcolme-Lawes, D. J.* and
Uy, O. M. See *Drowart, J., Myers, C. E., Szwarc, R., Vander Auwera-Mahieu, A.* and
—See *Srivastava, R. D., Uy, O. M.* and *Farber, M.*

Van Den Esker, M. W. J. See *Vrij, A.* and
Vander Auwera-Mahieu, A. See *Drowart, J., Myers, C. E., Szwarc, R., Vander Auwera-Mahieu, A.* and *Uy, O. M.*
Van Putte, K. 357
Van Wazer, J. R. See *Absar, I., Robert, J.-B.* and
Vincent, D. See *Bridge, N. James* and
Vrij, A. and **Van Den Esker, M. W. J.** . 513

Waddington, T. C. See *Temme, F. P.* and
Waldram, D. See *Atherton, N. M.* and
Walker, Isobel C. See *Duncan, C. W.* and
Walker, N. See *Clifford, A. A., Duckels, M. I.* and
Walker, S. M. See *Block, H., Groves, R., Lord, P. W.* and
Ward, A. J. I. See *Eley, D. D., Hey, M. J.* and
Waring, Stephen. See *Cox, A. Peter* and
Warsop, P. A. See *Davidson, R.* and
—See *Davidson, R., Hog, J., Warsop, P. A.* and *Whiteside, J. A. B.*
Watson, R. T. See *Clyne, M. A. A., Cruse, H. W.* and
Watts, D. C. See *Williams, G., Watts, D. C.* and *Nottin, J. P.*
Weiner, B. L. J. See *Claxton, T. A., Godfrey, M. J.* and
Wendt, R. P. See *Mason, E. A., Wendt, R. P.* and *Bresler, E. H.* . . . 1938
Whalley, E. 662
Whiffen, D. H. See *Carpenter, J. H., Rimmer, D. F.* and
White, J. W. and **Wright, C. J.** . 1414, 1423
—See *Reynolds, P. A.* and
Whiteford, R. A. See *Cradock, S.* and
—See *Cradock, S., Ebsworth, E. A. V., Savage, W. J.* and
Whitehead, M. A. See *Clipsham, R. M.* and
—See *Cohen, A. J.* and
—See *Zeiss, G. D.* and
Whiteside, J. A. B. See *Davidson, R., Hog, J., Warsop, P. A.* and
Whitney, P. M. See *Homer, J., Everdell, M. H., Jackson, C. J.* and

PAGE

Wiesenfeld, J. R. See *Abrahamson, E. W., Andrews, L. J., Husain, D.* and
Wild, A. H. See *Thrush, B. A.* and
Wilkinson, F. See *Adamczyk, A.* and
—See *Adams, D. R.* and
Wilkinson, J. G. See *Symons, M. C. R.* and
Williams, G., Cook, M. and **Hains, P. J.** 1045
—**Watts, D. C.** and **Nottin, J. P.** . . 16
Williams, R. H. See *Thomas, J. M., Adams, I., Williams, R. H.* and *Barber, M.*
Winkler, C. A., Tellinghuisen, J. B. and **Phillips, L. F.** 121
—See *Tellinghuisen, J. B., Winkler, C. A., Freeman, C. G., McEwan, M. J.* and *Phillips, L. F.*
Wood, P. M. See *Callear, A. B.* and
Woodward, T. W. See *Hayton, D. W.* and

PAGE

Worswick, R. D., Mayers, D. F. and **Staveley, L. A. K.** 539
Wright, C. J. See *White, J. W.* and
Wright, P. G. . . . 1951, 1955, 1959
—and **Humphreys, A. E.** 211

Yandell, J. K. See *Lyons, A. R., Symons, M. C. R.* and
Yee, K. K. and **Barrow, R. F.** . 1181, 1397
—**Barrow, R. F.** and **Rogstad, Astri** . 1808
Young, C. L. 452, 580

Zauli, C. See *Di Lonardo, G., Galloni, G., Trombetti, A.* and
Zeiss, G. D. and **Whitehead, M. A.** . 526
Zundel, G. See *Lindemann, R.* and
Zwolinski, B. J. See *Somayajulu, G. R.* and

INDEX TO REVIEWS—VOLUME 68, 1972

Advances in Heat Transfer. Vol. 6. Edited by Irvine and Hartnett 382
Classical Theory of Electric and Magnetic Fields. R. H. Good, Jr. and T. J. Nelson . . 383
Complex Permitivity Theory and Measurement. B. K. P. Scaife, W. G. S. Scaife, R. G. Bennett and J. H. Calderwood 896
Dipole Moments in Inorganic Chemistry. G. J. Moody and J. D. R. Thomas 576
Electrochemistry. J. Koryta, J. Dvorak and V. Bohackova 191
Electron Diffraction. T. B. Rymer 382
Far-Infrared Spectroscopy. K. D. Moller and W. G. Rothschild 1472
Fundamentals of Electrodynamics. Boris Podolsky and Kaiser S. Kunz 384
Inorganic Energetics. W. E. Dasent 575
Ion Implantation in Semiconductors. J. W. Mayer, L. Eriksson and J. A. Davies . . 575
Landolt-Bornstein Zahlenwerte u. Funktionen aus Naturwissenschaften u. Technik. Neue Serie, Gruppe III, Kristall-u. Festkorperphysik, Band 4 190
Laser Raman Spectroscopy. T. R. Gilson and P. J. Hendra 191
Laser. Verstarkung durch induzierte Emission. Sender optischer Strahlung hoher Koharenz und Leistungsdichte. Edited by W. Kleen and R. Muller, with G. Grau, K. Gurs, D. Rosenberger and G. Winstel 382
Masking and Demasking of Chemical Reactions. Theoretical Aspects and Practical Applications. D. D. Perrin 383
Mechanics (2nd edn.). L. D. Landau and E. M. Lifshitz 384
Modern Aspects of Graphite Technology. Edited by L. C. F. Blackman 192
Photochemistry and Spectroscopy. J. P. Simons 895
Physics of p-n Junctions and Semiconductor Devices. Edited by S. M. Ryvkin and Uy. V. Shamrtsev 1088
Quantum Chemistry. Part II. Molecular Spectroscopy. Ira N. Levine 895
Rotation-Vibration of Polyatomic Molecules. G. Amat, H. H. Nielsen and G. Tarrago . 1088
Solvent Extraction of Metals. A. K. De, S. M. Khopkar and R. A. Chalmers . . . 190
Spectrochemical Methods of Analysis. Edited by J. D. Winefordner 1280
Spectroscopic Methods in Organometallic Chemistry. Edited by W. O. George . . . 576
Spectroscopic Tricks. Edited by L. May 896
The Interpretation of Vibrational Spectra. D. Steele 896
The Metric System. M. Danloux-Dumesnils 190
Thermodynamique Stastique. R. Castaing 382
Units and Standards for Electromagnetism. P. Vigoureux. 575

THE FIRST ANNUAL GENERAL MEETING of the Faraday Division of The Chemical Society was held at 9.00 a.m., on 13th September, 1972 in the Molecular Sciences Lecture Theatre, The University of Sussex, with Professor J. W. Linnett, M.A., D.Phil., F.R.S., in the Chair.

1 The Minutes of the Seventh Annual General Meeting of the Incorporated Society, which had been circulated previously, were taken as read and were confirmed.

2 *Annual Report and Statement of Accounts.*
The Treasurer, Professor J. S. Rowlinson presented the accounts. The last year of the Faraday Society showed a substantial excess of expenditure over income of £20,000 which was the result of the decision not to raise subscriptions before amalgamation, coupled with the unexpected size of Publications and the employment of another member of staff. The Treasurer drew attention to the change which had been made in the presentation of the accounts whereby assets are now valued at their real value and not the book value. The assets of the Society stood at their highest value in its history. These would be handed over to The Chemical Society to be placed in trust to be used for any of the objects for which the Faraday Society was founded.

3 *Election of Council*
The Members of Council of the Faraday Division of The Chemical Society elected to take office from 28th March 1973 were as follows:

President

PROF. SIR GEORGE PORTER, M.A., Ph.D., Sc.D., F.R.S.

Vice-Presidents who have held office of President

PROF. A. R. UBBELOHDE, C.B.E., M.A., D.Sc., F.R.S.
PROF. SIR FREDERICK DAINTON, M.A., Sc.D., F.R.S.
PROF. C. E. H. BAWN, C.B.E., Ph.D., F.R.S.
PROF. G. GEE, C.B.E., M.Sc., Sc.D., F.R.S.
PROF. J. W. LINNETT, M.A., D.Phil., F.R.S.

Vice-Presidents

PROF. C. A. COULSON, M.A., F.R.S.
PROF. MANSEL DAVIES, M.Sc., Ph.D., Sc.D.
PROF. P. GRAY, M.A., Ph.D., Sc.D.
PROF. J. N. MURRELL, B.Sc., Ph.D.
B. A. PETHICA, Ph.D., D.Sc.
PROF. F. C. TOMPKINS, D.Sc., F.R.S.

Ordinary Members of Council

PROF. G. ALLEN, B.Sc., Ph.D., F.Inst.P.
PROF. E. F. CALDIN, M.A., D.Phil.
PROF. D. H. EVERETT, M.B.E., M.A., D.Sc.
PROF. Dr. E. U. FRANCK
PROF. G. J. HILLS, D.Sc., Ph.D.
PROF. Dr. J. LYKLEMA
PROF. J. E. PRUE, M.A., D.Phil.
PROF. J. H. PURNELL, M.A., Ph.D., Sc.D.
PROF. J. S. ROWLINSON, M.A., D.Phil., F.R.S.
H. A. SKINNER, B.A., B.Sc., D.Phil.

Honorary Treasurer

PROF. P. GRAY, M.A., Ph.D., Sc.D.

Honorary Secretary

PROF. F. C. TOMPKINS, D.Sc., F.R.S.

The President pointed out that the new Council will take office on 28th March 1973, the change being made so that the Faraday Division Council takes office at the same time as the Councils of the other Divisions, after the A.G.M. of The Chemical Society. He thanked Sir Harry Melville and Professor Kemball for their services as Vice-Presidents and Professor Murrell and Dr. Musgrave as the retiring Ordinary Members of Council. Professor Murrell was elected as Vice-President of the Division. The President also thanked Professor Rowlinson for the work he had done as Treasurer since he took office in 1968.

PREPARATION OF ILLUSTRATIONS FOR PUBLICATIONS OF THE FARADAY DIVISION

One set of original line drawings in Indian ink on Bristol board, tracing cloth, or tracing paper of good quality, should be submitted with three other sets, which may be reproductions. These, with other illustrations such as plates, should have the authors' names and the title of the paper written on the back, together with the figure number, e.g., fig. 3, or plate 2.

The legend of each figure or plate should be included with the typescript and not be attached to the drawings. A copy of the ordinate and abscissa of each figure should be included in the typescript in addition to appearing on the drawings. Descriptions of curves should not be written on the figures; the curves should be lettered or numbered and the description inserted in the legend. *All* lettering and numbering on the original drawings should be inserted on the diagram lightly in *blue* pencil. Copies of these drawings, attached to each typescript, should be clearly labelled (e.g., fountain or ball-point pen) so as to be readily comprehensible to the referees and editor.

Drawings should normally be prepared such that they can be reduced to one-third scale, and thus be not greater than A4 size ($11\frac{3}{4}$ in. $\times$ $8\frac{1}{4}$ in.), though in exceptional circumstances larger diagrams may be acceptable. No cross-lines are needed where the curve is given for illustration but the axes should be graduated at suitable intervals; where the curve is given for the purpose of measurement, cross-lines not too close together are useful. Graph paper should *not* be used. All lines should be firmly and evenly drawn; freehand should not be used.

Diagrams should be designed so as to be economical in the use of space. A block which is 3 - $4\frac{1}{2}$ in. wide and $2\frac{1}{2}$ - $3\frac{1}{2}$ in. high is therefore much preferred to one which is $2\frac{1}{2}$ - $3\frac{1}{2}$ in. wide and 3 - $4\frac{1}{2}$ in. high. The original drawing (7 - 9 $\times$ 5 - 7 in. approximately) should have 3 mm symbols (e.g. graph points $\times$, $\circ$, $\bullet$, etc.) and lines drawn with a 0.3 mm draughtsman's pen for easy legibility.

Photographs for reproduction as plates should be unmounted glossy prints with top and bottom indicated on the back of each, and where necessary a key diagram inserted to show their arrangement on the plate.

Diagrams which are unsuitable for reproduction will be returned to the authors for redrawing. However, at the request of the author(s), such diagrams can be redrawn by the Society's draughtsmen, but the cost must be borne by the author(s).

DEPOSITION OF DATA—
SUPPLEMENTARY PUBLICATIONS SCHEME

The increasing quantities of experimental and computational data now being accumulated make it difficult to publish these in full in the Journal. It is strongly recommended that experimental data not essential for the understanding of the text of a paper should be deposited with the National Lending Library. This scheme has been set up by the N.L.L. in consultation with editors of scientific journals whereby the additional detailed data may be stored and then copies made available on request at the N.L.L., Boston Spa.

Bulk information (such as crystallographic structure factor tables, computer programmes and output, evidence for amino-acid sequences, spectra, *etc.*), which accompany papers published in future issues of the Chemical Society's *Journal* may be deposited, free of charge, with the Supplementary Publications Scheme, either at the request of the author and with the approval of the referees, or on the recommendation of referees and the approval of the author.

Under this scheme, authors submit articles and the supplementary material to the Journal simultaneously in the normal way, and both will be refereed. If the paper is accepted for publication the supplementary material will be sent by the Society to the National Lending Library where it will be stored on microfiche. Microfiche and enlarged copies will be obtainable by individuals both in the U.K. and abroad on quoting a supplementary publication number that will appear in the parent article.

Authors will be responsible for the preparation of camera-ready copy according to the following specifications (although the Society will be prepared to help in case of difficulty).

(*a*) Optimum page size for text or tables in typescript: up to 30 cm × 21 cm.
(*b*) Limiting page size for text or tables in typescript: 33 cm × 24 cm.
(*c*) Limiting size for diagrams, graphs, spectra, *etc.*: 39 cm × 28.5 cm.
(*d*) Tabular matter should be headed descriptively on the first page, with column headings recurring on each page.
(*e*) Pages should be clearly numbered.

All material to be deposited should be accompanied by some prefatory text. Normally this will be the summary from the parent paper and authors should provide a duplicate copy of the summary.

This supplementary material will be available either as microfiche or as a photographic enlargement, from the National Lending Library's photocopying service. Items less than 10 pages in length are supplied as full size copies.

PRINTED IN GREAT BRITAIN AT
THE UNIVERSITY PRESS
ABERDEEN